PER

The New York
Academy of Medicine



Gift from the
Publisher

PF

THE JOURNAL OF THE TENNESSEE ~~STATE~~ MEDICAL ASSOCIATION

TENNESSEE STATE MEDICAL ASSOCIATION
STATE-COUNTY OFFICERS CONFERENCE
FEBRUARY 3, 1963
HERMITAGE HOTEL, NASHVILLE

TENNESSEE STATE MEDICAL ASSOCIATION
ANNUAL MEETING
APRIL 7-10, 1963
ANDREW JOHNSON HOTEL, KNOXVILLE

JANUARY, 1963

Volume 56 Number 1

of Contents on Page IV
x to Advertisers on Page LVI



sign of infection?



symbol of therapy!

Ilosone® is available in three convenient forms: Pulvules®—125 and 250 mg.*; Oral Suspension—125 mg.* per 5-cc. teaspoonful; and Drops—5 mg.* per drop, with dropper calibrated at 25 and 50 mg.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana. Ilosone® (erythromycin estolate, Lilly)
*Base equivalent

Lilly

232633

Ilosone works to speed recovery

in severe respiratory infections refractory to other measures.

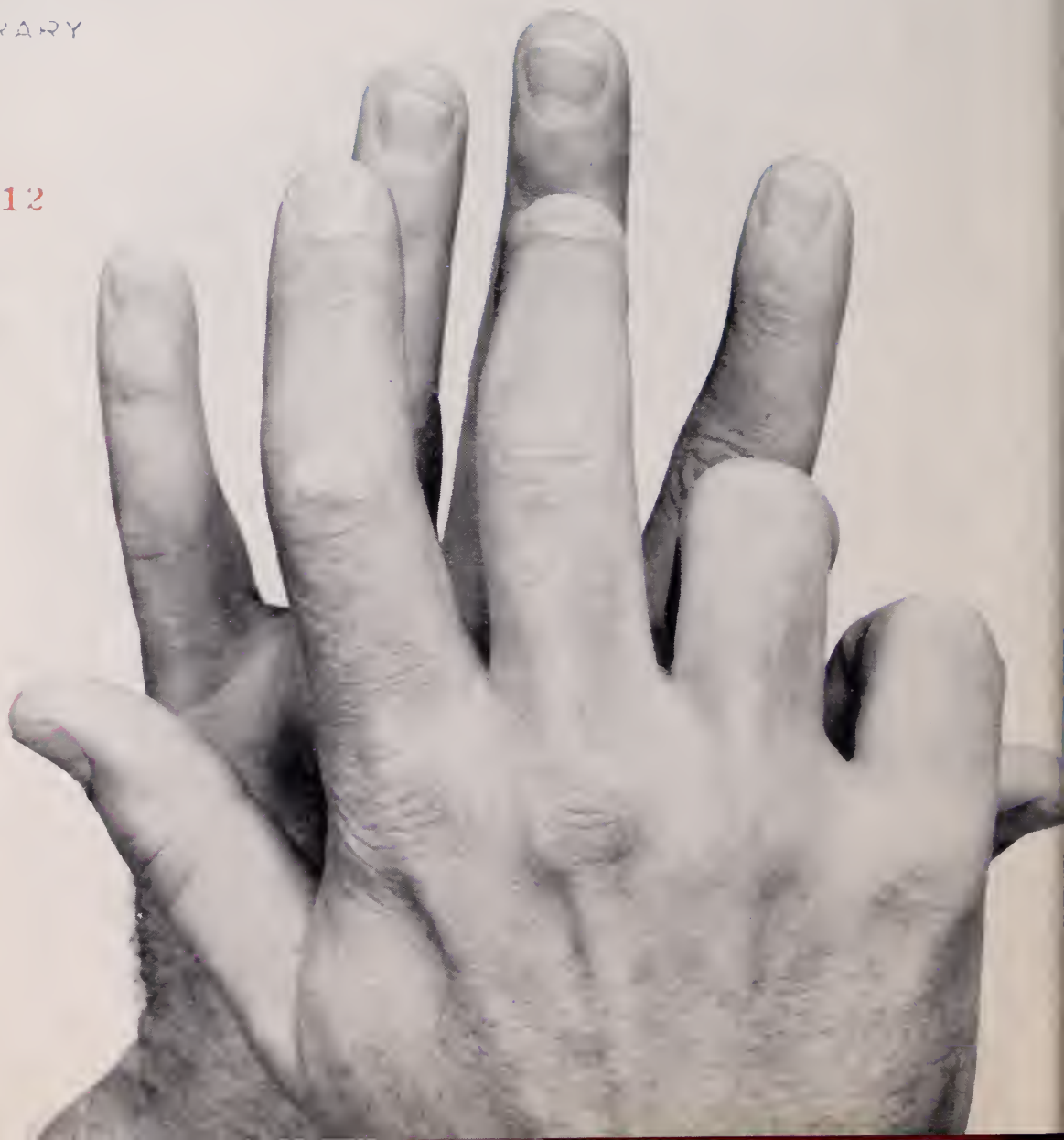
CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

for established clinical efficacy against susceptible organisms[1-3]

THE NEW YORK ACADEMY OF MEDICINE
FEB 10 1964
LIBRARY

353812



In Friedlander's Pneumonia[3,13]

Although the prognosis in Friedlander's pneumonia is poor, treatment with CHLOROMYCETIN has shown a good response when susceptible strains of *Klebsiella pneumoniae* are incriminated.

In *Hemophilus Influenzae* Pneumonia[3,4,13,14]

Because the invading organism is usually sensitive to CHLOROMYCETIN, this agent is generally effective in pneumonias caused by *H. influenzae*.

In Staphylococcal Pneumonia[1-8,13]

CHLOROMYCETIN continues to remain effective against many resistant strains of staphylococci, and—alone or in combination with other antibiotics—should be considered when other antistaphylococcal drugs are ineffective.

In Acute Epiglottitis[4,10,11]

This condition is most often caused by *H. influenzae,* most strains of which are sensitive to CHLOROMYCETIN. Therapy should be instituted at once, since the disease may progress from the first symptoms to a severe respiratory obstruction in four to six hours.

In Pneumonias Due to Gram-negative Bacilli[9]

Because of its broad-spectrum activity, CHLOROMYCETIN is often effective in pneumonias caused by sensitive strains of *Aerobacter, Proteus* of various species, *Paracolobactrum,* and other gram-negative pathogens encountered with increasing frequency in serious respiratory tract infections.

In Staphylococcal Empyema[12]

The infiltrating lesions of staphylococcal empyema are often difficult to eradicate. While CHLOROMYCETIN should only be used when the infection has been resistant to treatment with other antistaphylococcal drugs, therapy with CHLOROMYCETIN, in conjunction with surgical procedures, will often bring favorable results.

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections such as colds, influenza, or viral infections of the throat, or as a prophylactic agent.

Precautions: It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Thacher, H. C., & Fishman, L.: *J. Maine M. A.* **52**:84, 1961. (2) Hopkins, E. W.: *Postgrad. Med.* **29**:451, 1961. (3) Hall, W. H.: *M. Clin. North America* **43**:191, 1959. (4) Krugman, S.: *Pediat. Clin. North America* **8**:1199, 1961. (5) Ede, S.; Davis, G. M., & Holmes, F. H.: *J.A.M.A.* **170**:638, 1959. (6) Wolfsohn, A. W.: *Connecticut Med.* **22**:769, 1958. (7) Calvy, G. L.: *New England J. Med.* **259**:532, 1958. (8) Hendren, W. H., III, & Haggerty, R. J.: *J.A.M.A.* **168**:6, 1958. (9) Cutts, M.: *Rhode Island M. J.* **43**:388, 1960. (10) Berman, W. E., & Holtzman, A. E.: *California Med.* **92**:339, 1960. (11) Vetto, R. R.: *J.A.M.A.* **173**:990, 1960. (12) Sia, C. C. J., & Brainard, S. C.: *Hawaii M. J.* **17**:339, 1958. (13) Rosenthal, I. M.: *GP* **17**:77 (March) 1958. (14) Gaisford, W.: *Brit. M. J.* **1**:230, 1959.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

03863

The Journal of the TENNESSEE STATE MEDICAL ASSOCIATION

Published Monthly
By Tennessee State Medical Association
OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE
Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 1

JANUARY, 1963

Per Year, $5.00
Single Copy, 50 Cents

Published Monthly

Contents

Simultaneous Roentgen Examination of the Biliary and Urinary Tracts, H. Colby Gardner, M.D., and David S. Carroll, M.D., Memphis, Tenn. . . 1

Demecarium Bromide: Analysis of Its Action in Selected Group of Glaucomas, Alice R. Deutsch, M.D., and Wm. M. Rowlett, M.D., Memphis, Tenn. . . 5

Tuberculous Rheumatism, Glenn Clark, M.D., Memphis, Tenn. . 10

Myxedema and Heart Disease, Wesley H. Stoneburner, M.D., Chattanooga, Tenn. 12

Staff Conference 14

Clinicopathologic Conference 18

President's Letter . . 24

Editorial . . 25

Special Item . . 27

Deaths 32

Programs and News of Medical Societies . . 32

National News . . 32

Medical News in Tennessee 34

Personal News 36

Announcements . . 37

Placement Service . . 38

Instructions to Contributors

Manuscripts submitted for consideration for publication in the Journal of the Tennessee State Medical Association should be addressed to the Secretary-Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 4, Tennessee.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
R. H. KAMPMEIER, M.D., Editor
This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein
Copyright, 1963, by the Tennessee State Medical Journal

SPECIAL COUGH FORMULA for Children

Pediacof®

SOOTHING DECONGESTANT AND EXPECTORANT

Each teaspoon (5 ml.) contains:

Codeine phosphate	5.0 mg.
Neo-Synephrine® hydrochloride (brand of phenylephrine hydrochloride)	2.5 mg.
Chlorpheniramine maleate	0.75 mg.
Potassium iodide	75.0 mg.



Bright red, pleasant tasting, raspberry flavored syrup

Dosage:

Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

How Supplied:
Bottles of 16 fl. oz.

Available on prescription only.

Exempt Narcotic

Winthrop LABORATORIES
New York 18, N Y

Trocinate®

Brand of Thiphenamil HCl.

FOR DIVERTICULITIS, MUCUS COLITIS,

IRRITATIVE DIARRHEA, IRRITATIVE URETERITIS,

BLADDER SPASM

*T*rocinate is a musculotropic antispasmodic with no appreciable anticholinergic action. It relieves spasms of the lower bowel and genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma. Each tablet contains 100 mgs. Trocinate HCl.

USUAL DOSAGE: 2 tablets, 4 times a day. Maintenance dosage is frequently lower.

Dispensed in bottles of 40 and 250 tablets.

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

what your patients need to know about Aspirin

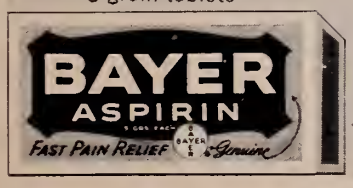


As you know, the confidence your patients place in a certain treatment or drug often helps to reinforce the relief they get from it. That's why it's often a good idea to explain the reasons for your recommendations, even in the simplest cases.

For example, aspirin. You probably recommend it more than any other drug, as an analgesic, as an antipyretic, as an aid to sleep when restlessness is caused by minor discomforts. Certainly aspirin is the most versatile and one of the most effective drugs in the arsenal of medicine.

But aspirin is such a common and such a safe drug that most laymen vastly underrate it. To use it with the utmost confidence, they need to know more about it. So next time, take a minute or two to explain what a uniquely valuable drug aspirin really is. You know it; your patients will be reassured to know it, too.

5-grain tablets



1¼-grain tablets



For professional samples, write The Bayer Company, 1450 Broadway, New York 18, N. Y.



BENEFICIAL RESULTS were obtained with **SARDO** in the bath in 122 of 135 patients (90%) with dry, itchy skin conditions, in most cases with beneficial effect "after the first bath." Dryness was allayed in all cases, and associated itching "either completely relieved or greatly improved." No irritation or sensitization was observed.

This new study corroborated others[2-4] showing that SARDO helps re-establish the normal physiologic lipid-aqueous skin balance.

Pleasant, easy-to-use SARDO releases millions of microfine water-dispersible globules* in the bath. Bottles of 4, 8 and 16 oz.

*Patent Pending T.M. ©1963 by Sardeau, Inc.

SAMPLES and literature available from . . .

SARDEAU, INC.

75 East 55th Street, New York 22, N. Y.

1. Borota, A., and Grinell, R.N.: J. Amer. Geriatrics Soc., 10:413, 1962.
2. Spoor, H. J.: N.Y. State J.M. 58:3292, 1958.
3. Lubowe, I. I.: Western Med. 1:45, 1960.
4. Weissberg, G.: Clin. Med. 7:1161, 1960.

MEAN INCREASE OF 80% IN CORONARY BLOOD FLOW*

For your
angina patients
continuous protection
all day,
all night

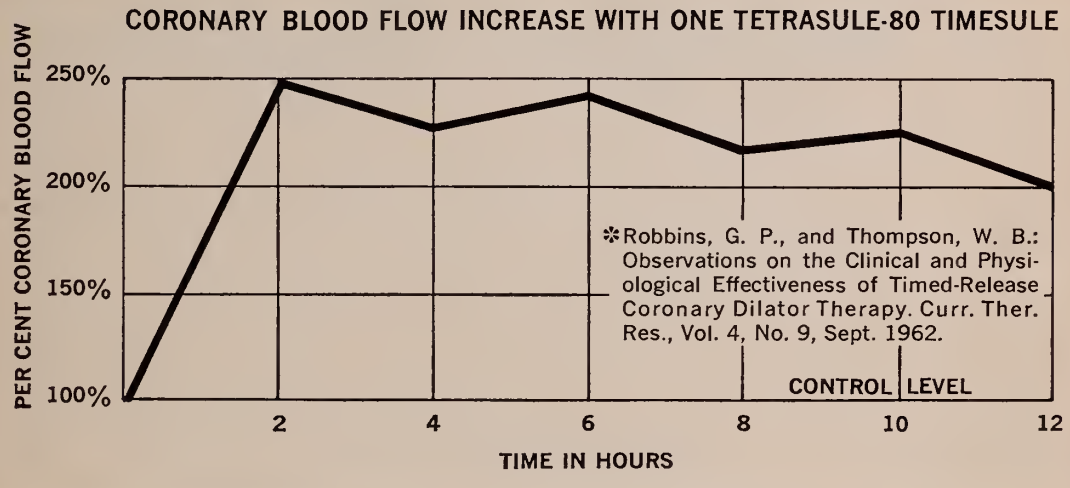


Tetrasule®

Pentaerythritol Tetranitrate, Arnar-Stone

Therapy with TETRASULE TIMESULES®, Timed-release capsules:

dilates coronary arteries → increases coronary blood flow → helps nourish oxygen-deficient myocardium → minimizes frequency of attacks and reduces their severity should they occur → reduces nitroglycerine requirements



With a Tetrasule Timesule, release of PETN is timed-phased over 12 hours and matches PETN need. The pellets are distributed throughout the G-I tract, and release is independent of enzymatic activity or motility. Thus, constant availability of PETN—no peaks or valleys—is assured.

B.i.d. dosage of Tetrasule Timesules provides continuous protection—all day, all night—including the critical early A.M. hours. This 12-hour protection was confirmed by a recent study of Robbins and Thompson , as demonstrated in the above chart.

SUPPLIED: Tetrasule, 30 mg. PETN; Tetrasule-S, 30 mg. PETN and 30 mg. Amobarbital (warning, may be habit-forming); Tetrasule-80, 80 mg. PETN.

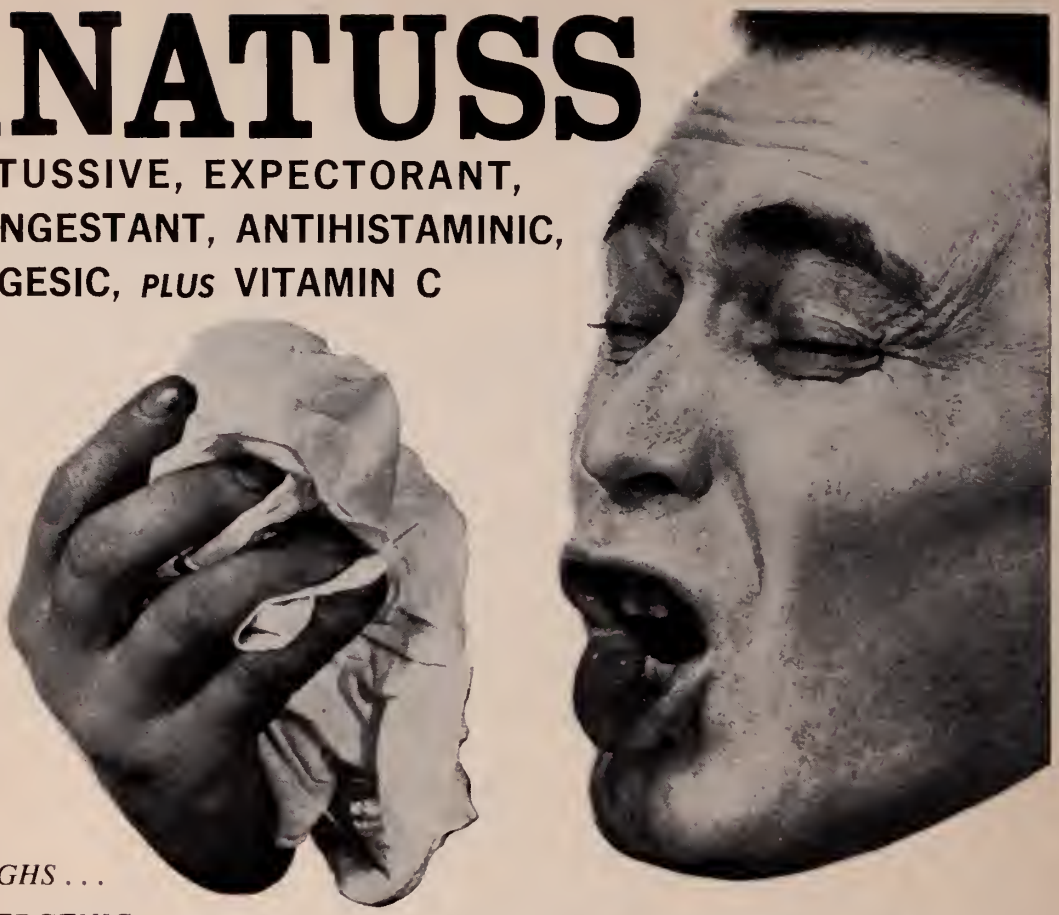
CAUTION: Federal law prohibits dispensing without prescription. Use with caution in glaucoma and severe anemia.

For reprints of the above study or a clinical supply write to:

ARNAR-STONE Laboratories, Inc.
STORCK PHARMACEUTICALS DIVISION
Mount Prospect, Illinois

ANATUSS

ANTITUSSIVE, EXPECTORANT, DECONGESTANT, ANTIHISTAMINIC, ANALGESIC, *PLUS* VITAMIN C



- *COUGHS . . .*
- *ALLERGENIC REACTIONS . . .*
- *NASAL CONGESTION . .*
- *MINOR PAIN . . .*



ANATUSS TABLETS' UNIQUE PRESS COATING COMBINES 7 ACCEPTED INGREDIENTS FOR A 7 PRONG ATTACK ON RESPIRATORY SYMPTOMS . . .

At last — here is a tablet containing previously incompatible drugs which could not be administered in a single dosage form. ANATUSS is valuable in treating irritating coughs associated with allergic bronchitis or rhinitis; coughs and allergenic conditions associated with the common cold; chronic non-specific bronchitis; acute pharyngitis with cough; chronic pulmonary disease; post influenzal cough.

Each Tablet Contains:

IN OUTER COATING

Glyceryl Guaiacolate ..... 50 mg. N-Acetyl-P-Aminophenol ..... 300 mg.

IN INNER CORE

Dextromethorphan Hydrobromide ... 10 mg. Phenylephrine Hydrochloride ... 5 mg.
Phenylpropanolamine Hydrochloride 25 mg. Chlorpheniramine Maleate ..... 2 mg.
Ascorbic Acid ..... 100 mg.

Available in Bottles of 100 and 500 tablets. **ALSO** as **ANATUSS SYRUP**, combining the same valuable ingredients in a pleasantly flavored base.

SAMPLES AND LITERATURE ON REQUEST

Mayrand, Inc. PHARMACEUTICALS

GREENSBORO, NORTH CAROLINA



who coughed?

HYCOMINE® SYRUP for COUGHS

provides fast and long-lasting cough control

relieves cough in 15-20 minutes • lasts 6 hours or longer • promotes expectoration and decongestion of air passages • rarely constipates • agreeably cherry-flavored

Each teaspoonful (5 cc.) of HYCOMINE Syrup contains:

Hycodan®	6.5 mg.
Dihydrocodeinone Bitartrate (Warning: May be habit-forming)	5 mg.
Homatropine Methylbromide	1.5 mg.
Pyrilamine Maleate	12.5 mg.
Phenylephrine Hydrochloride	10 mg.
Ammonium Chloride	60 mg.
Sodium Citrate	85 mg.

Average adult dose: One teaspoonful after meals and at bedtime. May be habit-forming. On oral prescription where state laws permit. U.S. Pat. 2,630,400.

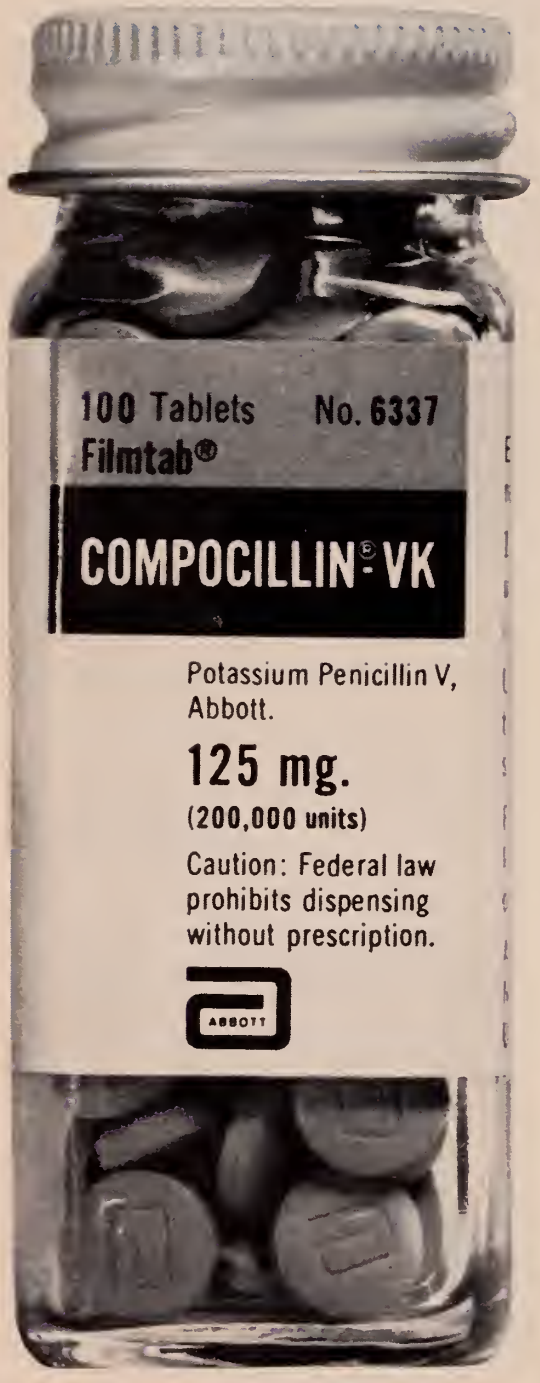
Literature on request

Endo®

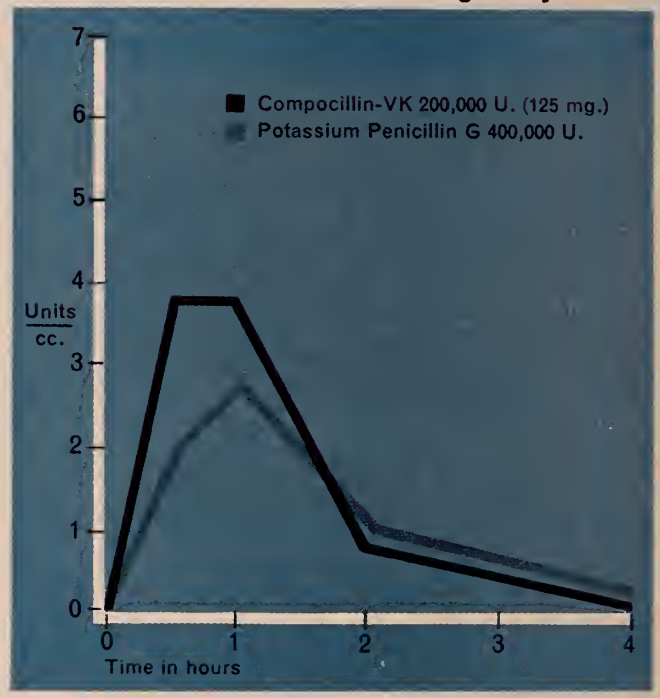
ENDO LABORATORIES
Richmond Hill 18, New York

Here's a penicillin that gives you...

PATIENT ECONOMY WHEN YOU WANT IT



Single Oral Doses to Fasting Subjects*



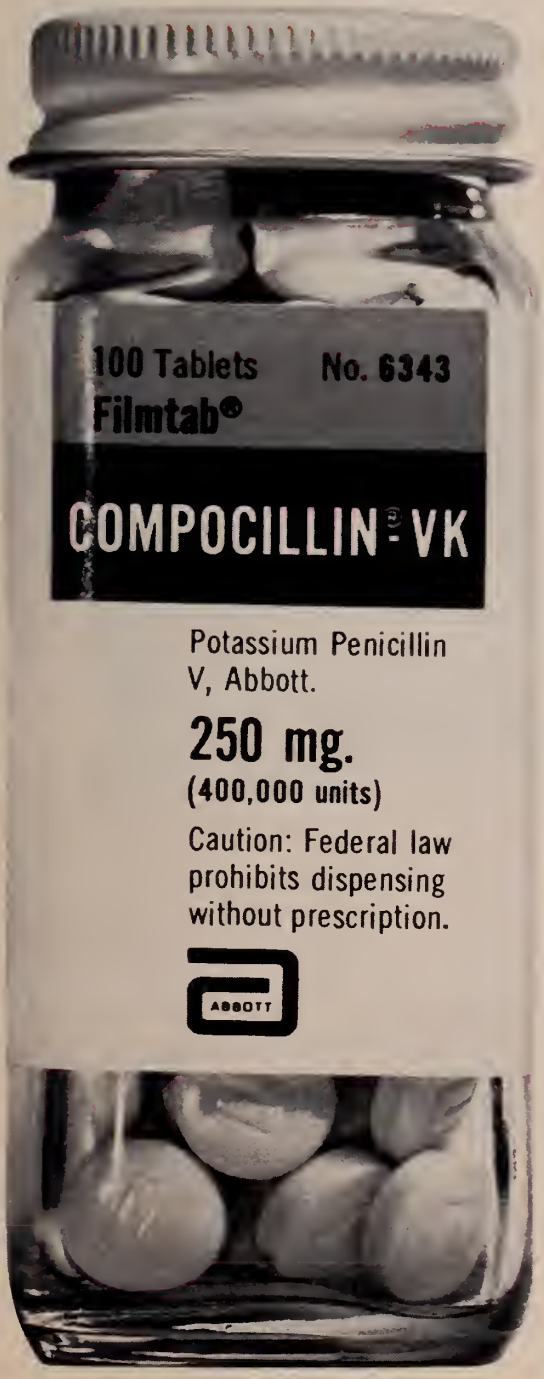
Consider milder bacterial infections

An example might be a respiratory infection. Here economy could be a definite factor in your thinking. In the chart above, you'll see that 200,000 units (125 mg.) of Compocillin VK produces blood levels at least equal to those obtained with 400,000 units of oral penicillin G potassium. This means that in less severe infections, Compocillin-VK may be given at *half* the dosage needed with oral penicillin G—with no sacrifice in blood levels. In these cases, the cost of Compocillin-VK therapy will be no more—and often will be less—than treatment with oral penicillin G.

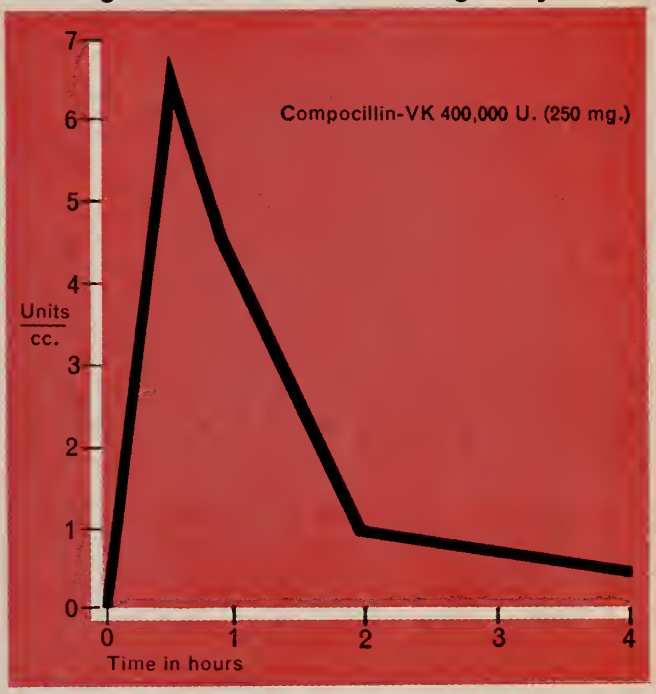
Compocillin-VK—the original potassium penicillin V • In Filmtab (125 and 250 mg.) and cherry-flavored Granules for Oral Suspension

Filmtab—Film-sealed tablets, Abbott: U.S. Pat. No. 2,881,085

PEAK EFFICIENCY WHEN YOU NEED IT



Single Oral Doses to Fasting Subjects*



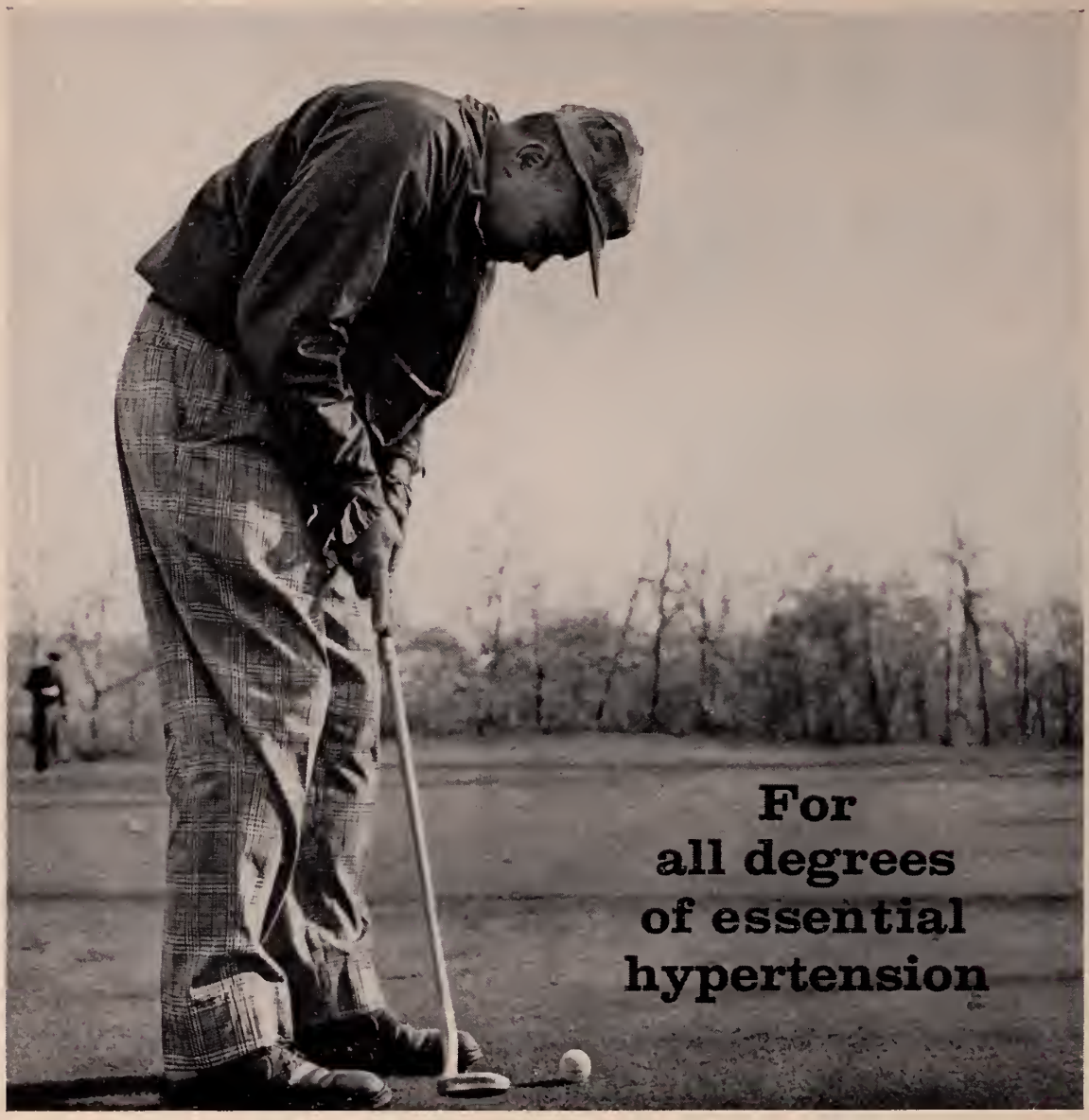
Then, for severe infections...

. . . where your primary concern is high peak serum concentrations, you can prescribe Compocillin-VK at *full therapeutic dosage* and get the maximum antibacterial activity possible with an oral penicillin. The chart above shows the rapid peak blood levels obtained with 400,000 units (250 mg.) of Compocillin-VK. Actually, these peaks occur faster—and are higher—than those obtained with intramuscular penicillin G. Indeed, Compocillin-VK has been used in cases previously reserved for parenteral treatment. The safety advantage (oral vs. injectable) goes without saying.

*Chart data from two separate studies completed by the Microbiologic and Medical Departments of Abbott Laboratories.

ABBOTT LABORATORIES NORTH CHICAGO, ILLINOIS

210274



"relief of symptoms is striking with Rautrax-N"†

Rautrax-N decreases blood pressure for almost all patients with mild, moderate or severe essential hypertension. Rautrax-N also offers a new sense of relaxation and well-being in hypertension complicated by anxiety and tension. And in essential hypertension with edema and/or congestive heart failure, Rautrax-N achieves diuresis of sodium and chloride with minimal effects on potassium and other electrolytes.

Rautrax-N combines Raudixin (antihypertensive-tranquilizer) with Naturetin c̄ K (antihypertensive-diuretic) for greater antihypertensive effect and greater effectiveness in relief of hypertensive symptoms than produced by either component alone. Rautrax-N is also flexible (may be prescribed in place of Raudixin or Naturetin c̄ K) and economical (only 1 or 2 tablets for maintenance in most patients).

Supply: Rautrax-N — capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin and 400 mg. potassium chloride. *Rautrax-N Modified* — capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin and 400 mg. potassium chloride.

†Hutchison J. C.: Current Therap. Res. 2:487 (Oct.) 1960.

For full information, see your Squibb Product Reference or Product Brief.

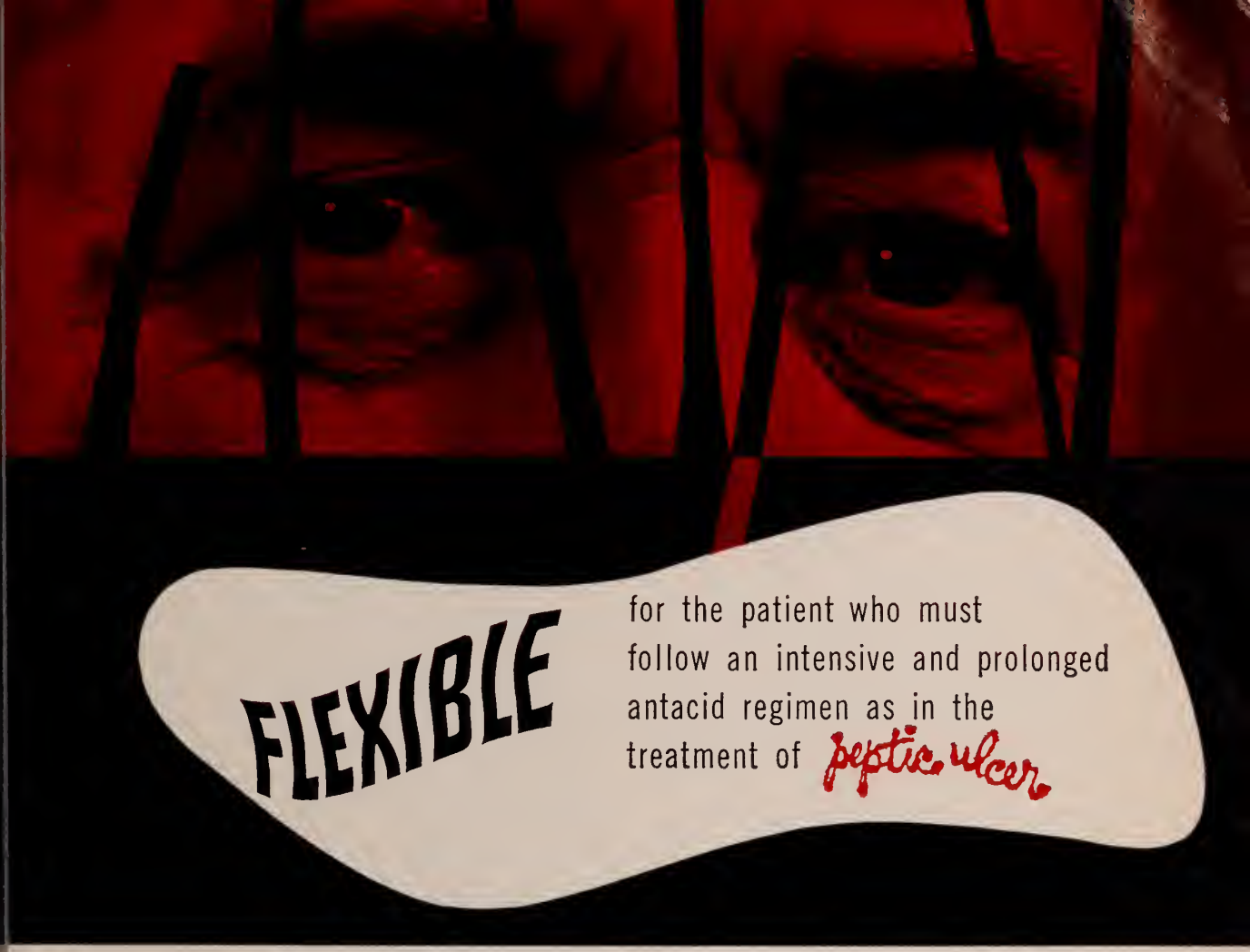
Rautrax-N*

Squibb Standardized Rauwolfia Serpentina Whole Root (Raudixin) and Bendroflumethiazide (*Naturetin) with Potassium Chloride

SQUIBB *Squibb Quality — the Priceless Ingredient*

SQUIBB DIVISION Olin

'RAUDIXIN'®, 'RAUTRAX'®, AND' NATURETIN'® ARE SQUIBB TRADEMARKS.



FLEXIBLE

for the patient who must follow an intensive and prolonged antacid regimen as in the treatment of *peptic ulcer*

as reactive in tablet form . . .

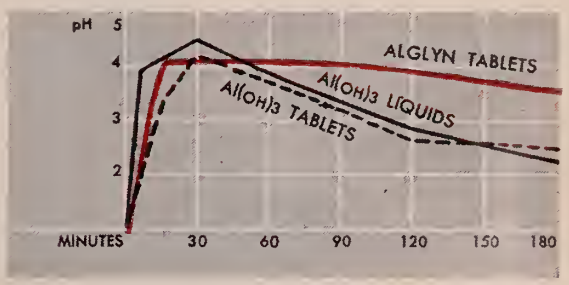
ALGLYN®

Dihydroxy aluminum aminoacetate

The superiority of Alglyn (dihydroxy aluminum aminoacetate) as an antacid over ordinary aluminum preparations is quite pronounced. Not only do Alglyn Tablets act as rapidly as aluminum hydroxide gels and magmas, but they maintain a much more effective pH for a longer time (see chart).

Furthermore, Alglyn Tablets are decidedly superior when antacid-belladonna therapy is indicated. Ordinary aluminum preparations may actually *ad*sorb as much as 80% of the spasmolytic drug, as compared to only 7% for Alglyn Tablets. In addition, Alglyn contains no sodium and less aluminum.

Supplied in bottles of 100 0.5 Gm. tablets. Also as Belglyn® (with belladonna), and as Malglyn® (with belladonna and phenobarbital). Literature available upon request. *(See pg. 549 PDR for complete product information.)*



BRAYTEN

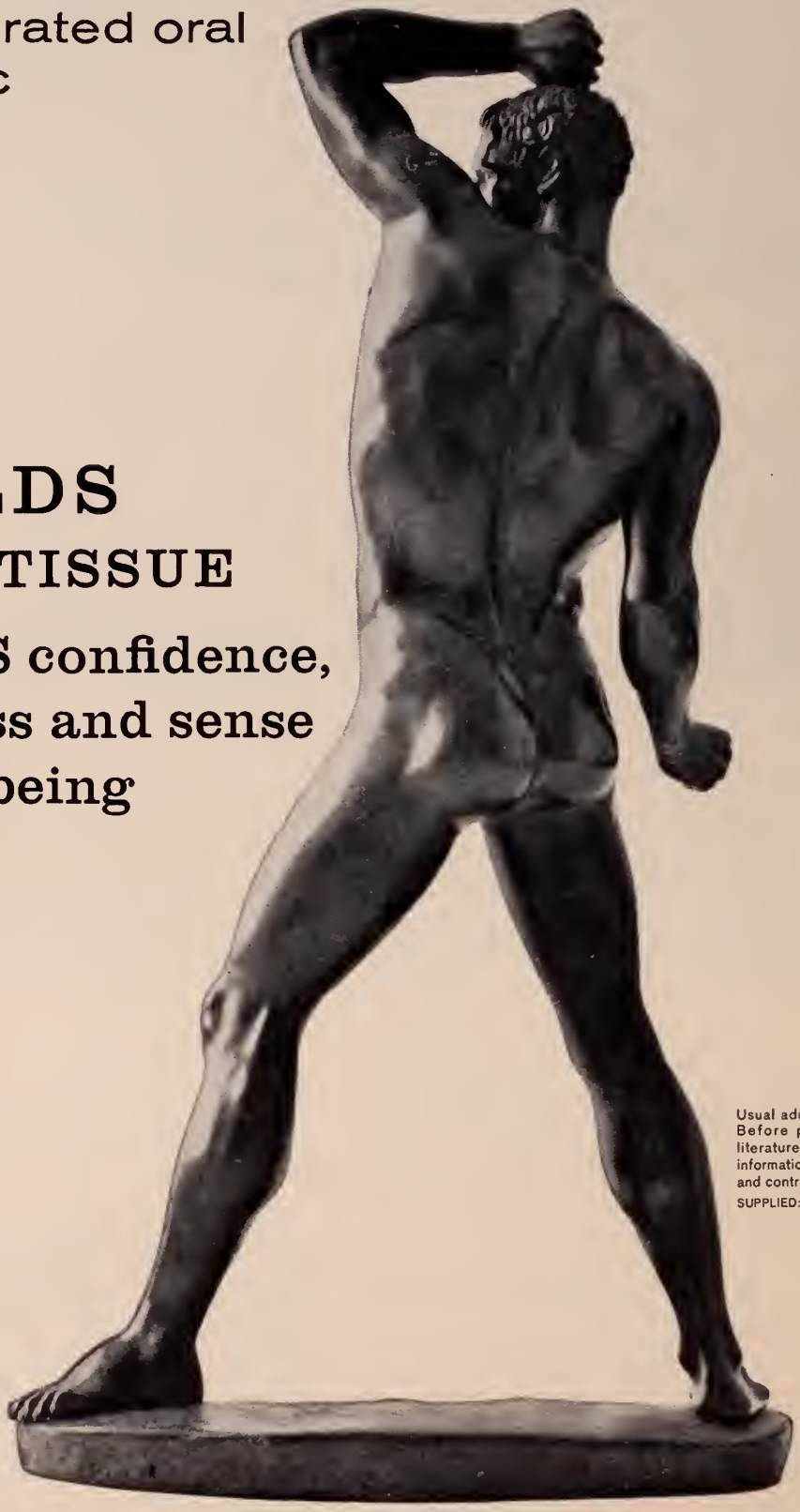
BRAYTEN PHARMACEUTICAL COMPANY *Chattanooga 9, Tennessee*

THE SIGNIFICANT NEW PHYSIOTONIC

WINSTROL®

BRAND OF STANOZOLOL

well tolerated oral anabolic



BUILDS BODY TISSUE

BUILDS confidence, alertness and sense of well-being

Usual adult dose: 1 tablet t.i.d. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

SUPPLIED: 2 mg. tablets. Bottles of 100.

Winthrop
LABORATORIES
New York 18, N.Y.

With WINSTROL, patients look better...feel stronger—because they are stronger



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and record of safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past seven years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

Clinically proven in over 750 published studies

1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms or liver damage
3. Does not muddle the mind or impair physical activity

CM-7972

asthma attack averted
. . . in minutes

patient protected
. . . for hours





Nephenalin®

(the dual-action anti-asthmatic tablet)

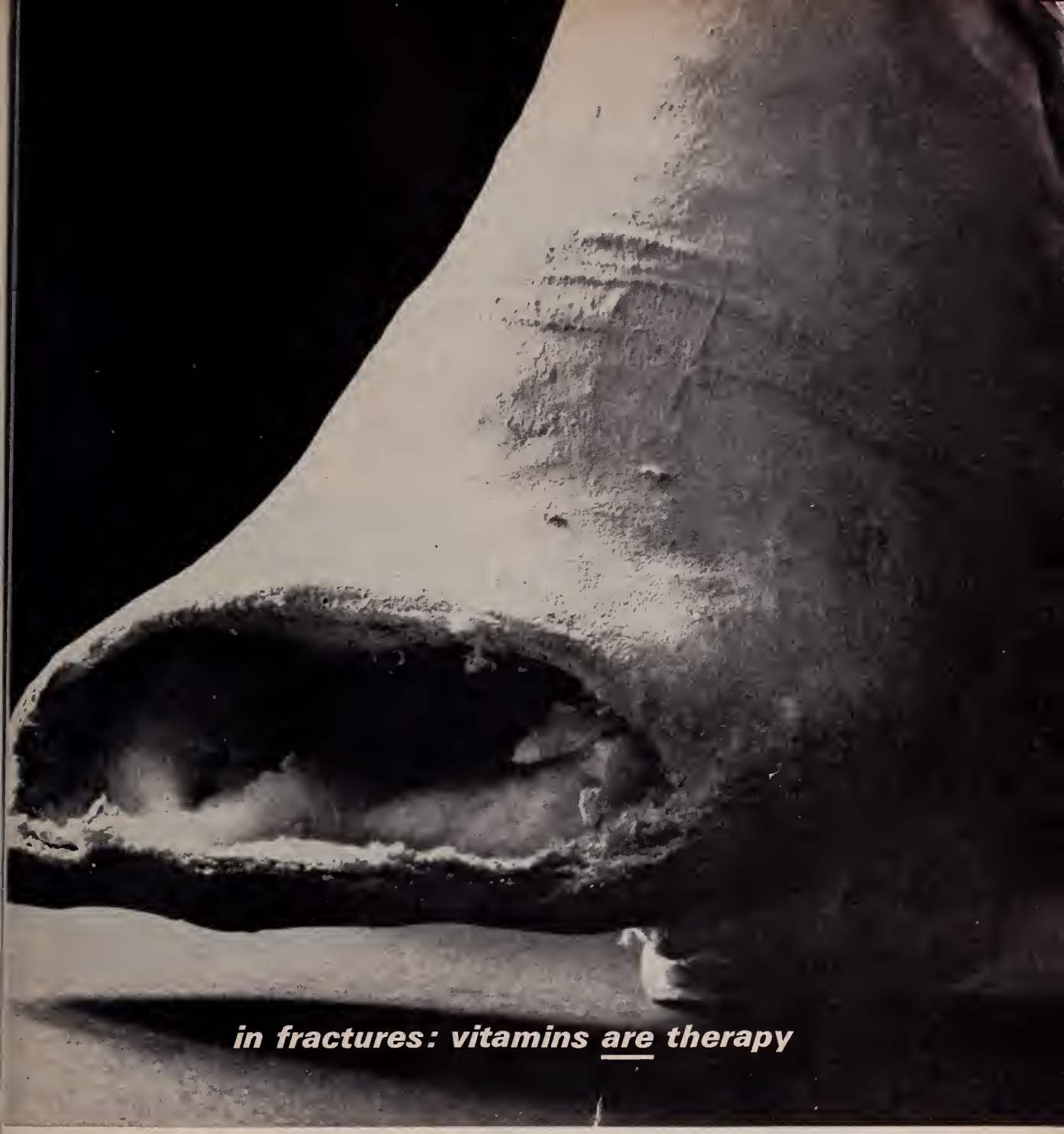
. . . works with nebulizer speed—provides four-hour protection

One NEPHENALIN tablet provides: *air in a hurry*—through sublingual isoproterenol HCl, 10 mg. *air for hours*—through theophylline, 2 gr.; ephedrine, ⅜ gr.; phenobarbital, ⅛ gr.

Dosage: Hold one NEPHENALIN tablet under the tongue for five minutes to abort the asthmatic attack promptly. Then swallow the tablet core for four full hours' protection against further attack. Only one tablet should be taken every four hours. No more than five tablets in 24 hours.

Supplied: Bottles of 50 tablets. For children: NEPHENALIN Pediatric, bottles of 50 tablets.

Caution: Do not administer NEPHENALIN with epinephrine. The two medications may be alternated at 4-hour intervals. NEPHENALIN should be administered with caution to patients with hyperthyroidism, acute coronary disease, cardiac asthma, limited cardiac reserve, acute myocardial damage, and to those hypersensitive to sympathomimetic amines. Phenobarbital may be habit forming. THOS. LEEMING & CO., INC., New York 17, N.Y.



Few factors are more fundamental to tissue and bone healing than nutrition. Therapeutic allowances of B and C vitamins are important for rapid replenishment of vitamin reserves which may be depleted by the stress of fractures. Metabolic support with STRESSCAPS is a useful adjunct to an uneventful recovery. Supplied in decorative "reminder" jars of 30 and 100.

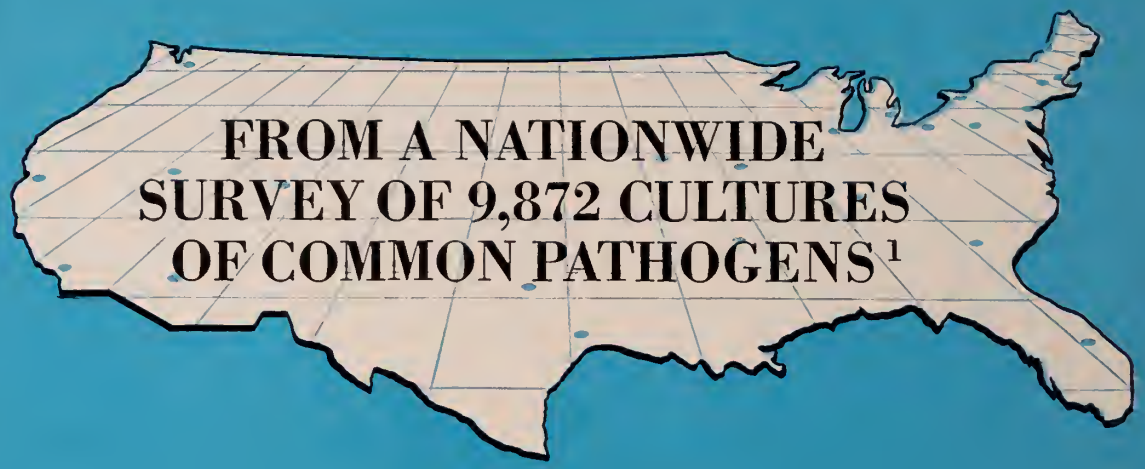
Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N.Y.

STRESSCAPS®

Stress Formula Vitamins Lederle



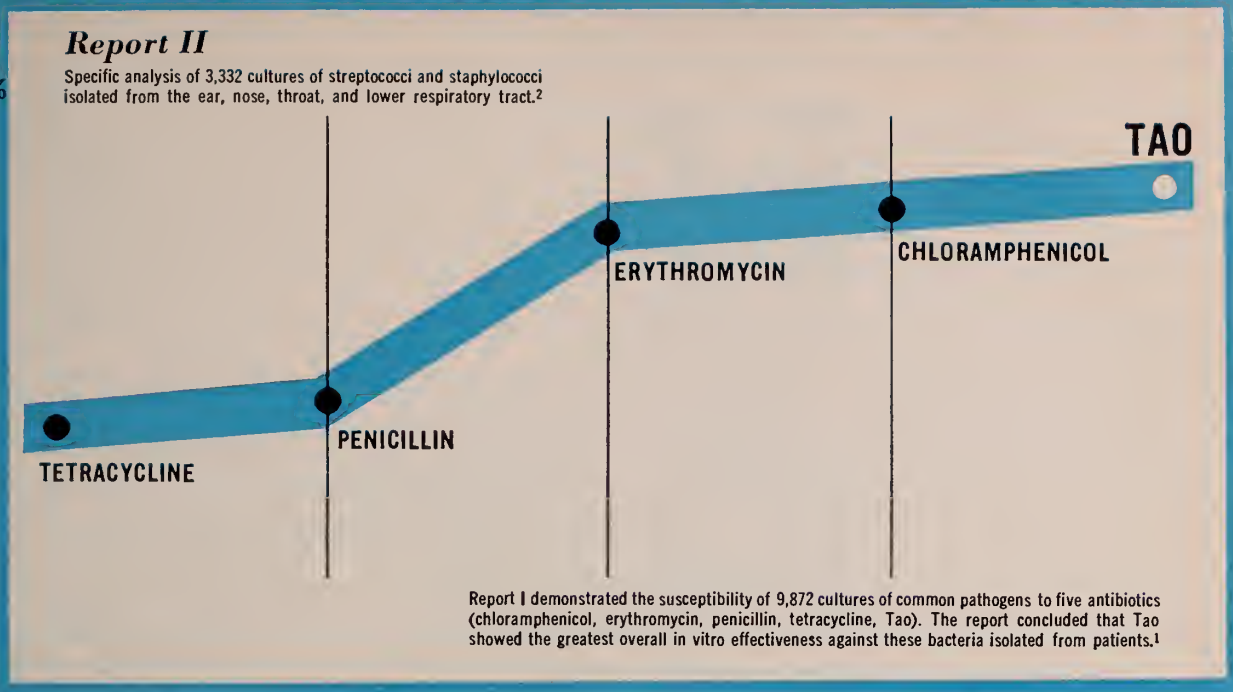
FROM A NATIONWIDE SURVEY OF 9,872 CULTURES OF COMMON PATHOGENS[1]

Conclusions of Nationwide Survey: *Report I*

1. **Even after five years of general use,** Tao, of the antibiotics tested, demonstrated greatest activity against respiratory streptococci and staphylococci (3,332 cultures).

2. **Overall results showed a higher percentage of susceptibility** among these common pathogens to Tao than to the other antibiotics. Susceptibility to Tao was greatest, not only in respiratory streptococci and staphylococci, but also in these organisms isolated from skin and soft tissue (3,423 cultures), genitourinary and gastrointestinal tracts and other sources (2,458 cultures). Susceptibility was equal to all antibiotics tested in pneumococci from unspecified sources (463 cultures), and less to Tao in H. influenzae from unspecified sources (196 cultures).

3. **Tao has been used for five years without development of predictable cross resistance.** In 1958 and 1961, approximately 73% and 70%, respectively, of erythromycin-resistant problem staphylococci showed susceptibility to Tao.[3,4] The present study confirms the continuing high degree of Tao activity even against these pathogens. Of 1,592 cultures of erythromycin-resistant staphylococci, 68% were susceptible to Tao, while in the reverse situation, only 33% of 768 Tao-resistant staphylococci were susceptible to erythromycin.



Report II

Results of Bacterial Susceptibility in 3,332 Respiratory Pathogens

References

1. "Bacterial Susceptibility Patterns: A Geographic Survey." Fowler, J. Ralph, M.D., and Watters, John L., M.D. Scientific Exhibit presented at the Annual Meeting of the American Society of Clinical Pathologists, Chicago, Ill., August 31 to September 9, 1962. 2. Fowler, J. Ralph, Watters, John L. and Levy, Arthur M.: Bacterial Susceptibility Patterns as Related to Geographic Variation and Anatomical Source. In press. 3. English, A. R., and Fink, F. C.: Antibiot. & Chemother. 8:420 (Aug.) 1958. 4. English, A. R., and Fink, F. C.: Antibiot. and Chemother. 11:648 (Oct.) 1961.

New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

If you would like a report of the entire susceptibility study, write Medical Department, J. B. Roerig and Company, 235 E. 42nd St., New York 17, N.Y.



Capsules · Ready-Mixed Oral Suspension · Pediatric Drops · Parenteral (as oleandomycin phosphate)

USANOL®

a new approach for an old problem

URINARY TRACT PATHOGENS URINARY TRACT PATHOGENS

USANOL Tablets are a urinary antiseptic and antispasmodic that destroy most urinary tract pathogens including strains resistant to antibiotics and sulfonamides.

COMPOSITION:
Each tablet contains:
Methenamine mandelate ..... 3.75 grs.
Homatropine methylbromide ..... 1/200 gr.

AVAILABILITY:
Available in bottles of 100 and 500 tablets.

DOSAGE:
Usual dose is one to two tablets 3 to 4 times a day but can be increased if needed.

CONTRAINDICATIONS:
Contraindicated in renal insufficiency, and caution in patients with glaucoma because of homatropine methylbromides.

ANOTHER ESTABLISHED NEED PRODUCT

FTP **First Texas** *Pharmaceuticals, Inc.* DALLAS • ATLANTA

SERVING THE PHYSICIAN'S NEEDS SINCE 1901



Put your low-back patient back on the payroll

Soma relieves stiffness –stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days. (J.A. M.A. Vol. 172, No. 18, April 30, 1960.)*

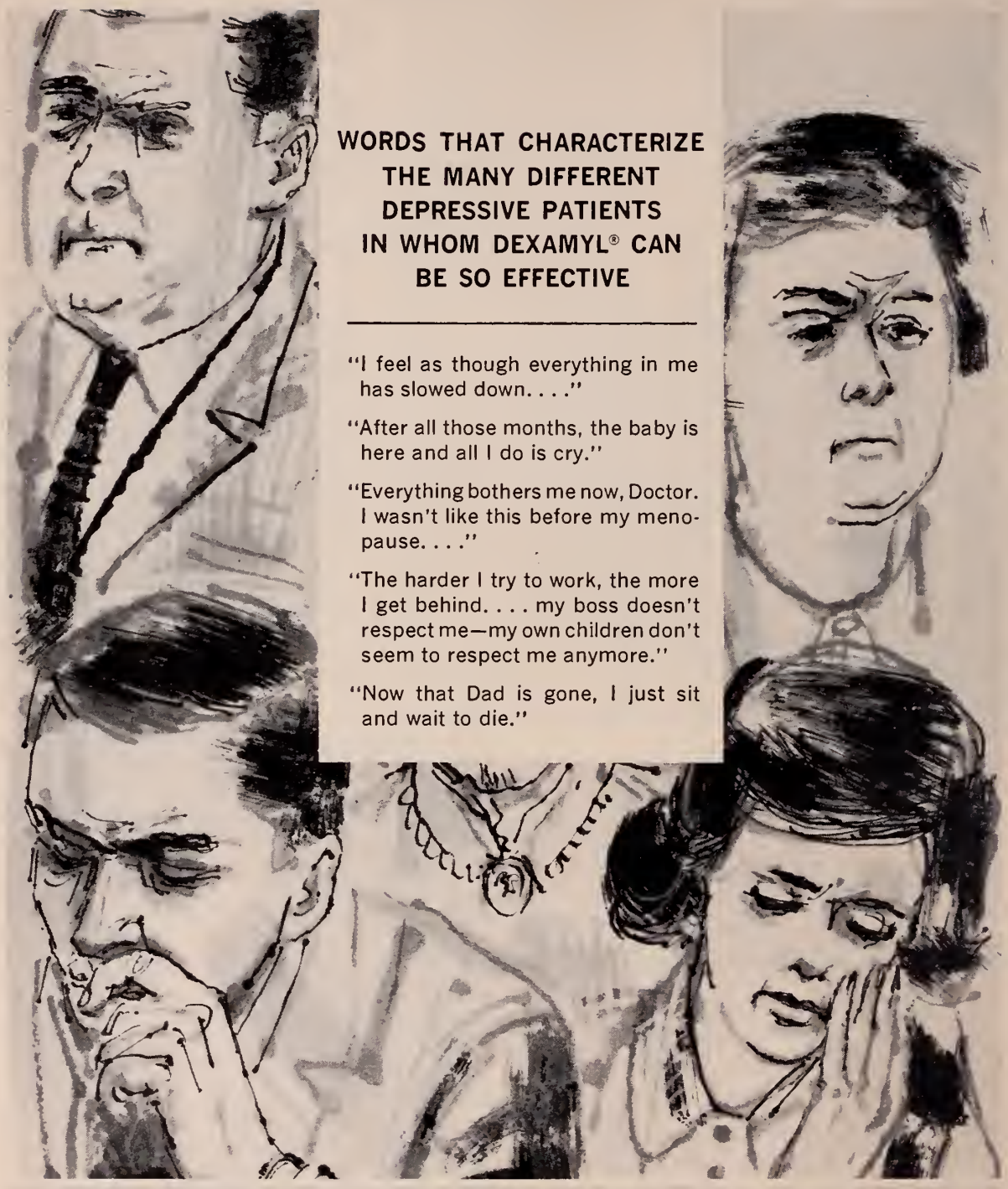
Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey



WORDS THAT CHARACTERIZE THE MANY DIFFERENT DEPRESSIVE PATIENTS IN WHOM DEXAMYL® CAN BE SO EFFECTIVE

"I feel as though everything in me has slowed down. . . ."

"After all those months, the baby is here and all I do is cry."

"Everything bothers me now, Doctor. I wasn't like this before my menopause. . . ."

"The harder I try to work, the more I get behind. . . . my boss doesn't respect me—my own children don't seem to respect me anymore."

"Now that Dad is gone, I just sit and wait to die."

DEXAMYL® SPANSULE® brand of sustained release capsules

FORMULA: Each 'Spansule' capsule No. 1 contains 10 mg. of Dexedrine® (brand of dextro amphetamine sulfate), and 1 gr. of amobarbital, derivative of barbituric acid [Warning, may be habit forming]. Each 'Spansule' capsule No. 2 contains 15 mg. of 'Dexedrine' (brand of dextro amphetamine sulfate) and 1½ gr. of amobarbital [Warning, may be habit forming]. The active ingredients of the 'Spansule' capsule are so prepared that a therapeutic dose is released promptly and the remaining medication, released gradually and without interruption, sustains the effect for 10 to 12 hours.

INDICATIONS: (1) For mood elevation in depressive states; (2) for control of appetite in overweight.

USUAL DOSAGE: One 'Dexamyl' *Spansule* capsule taken in the morning for 10- to 12-hour effect.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Use with caution in patients hypersensitive to sympathomimetic compounds or barbiturates and in coronary or cardiovascular disease or severe hypertension.

SUPPLIED: 'Spansule' capsules No. 1 (1 dot on capsule) and No. 2 (2 dots on capsule), in bottles of 30.

Prescribing information October 1962.

Smith Kline & French Laboratories



NEW!

Around the clock relief for

DISTRESS OF

COLDS

ISOCLOR® TIMESULE®

A NEW COMPREHENSIVE RELIEF

- **Relief usually starts in minutes**—to open nasal passages, stop running nose and eyes, sneezing, wheezing, itching and post-nasal drip
- **Relief usually lasts up to 12 hours** with a single oral dose
- **Gives both** upper respiratory decongestion and bronchodilatation to relieve chest discomfort
- **With minimal** drowsiness, CNS or pressor stimulation



clor Timesule, actual size

MADE POSSIBLE BY THE NEW TIMESULE RELEASE MECHANISM



Schematic drawing of Timesule cell owing dialysis ugh permeable coating.

ALSO AVAILABLE:
ISOCLOR TABLETS AND LIQUID.

Release with the Isoclor Timesule is at a relatively even, constant rate, independent of gastrointestinal motility, pH, or enzymatic activity. Each Timesule pellet is actually a micro dialysis cell, consisting of a drug core with coating of dialyzing membrane of precisely controlled permeability. Approximately 20% of active drugs are released within one hour and 80% in 8 hours. Peaks and valleys of over-release and under-release are minimized for constant, controlled relief with minimum side effects.

EACH ISOCLOR TIMESULE CONTAINS:
Chlorpheniramine maleate . . . . . 10 mg.
d-Isoephedrine HCl . . . . . 65 mg.
In a special form providing prolonged therapeutic effect.

DOSE: Adults: One Timesule every 12 hours, or as directed.

WARNING: Use with caution in patients suffering from hypertension, cardiac disease, hyperthyroidism or diabetes. Patients susceptible to the soporific effect of chlorpheniramine should be warned against driving or operating machinery should drowsiness occur.

ARNAR-STONE LABORATORIES, INC.,
Mount Prospect, Illinois,

from Oroya fever in Peru



lobar pneumonia in Tennessee

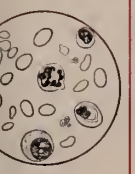
re is a world of experience behind BRAND OF OXYTETRACYCLINE **Terramycin®**



Whether treating Oroya fever or a host of other infections, physicians throughout the world continue to rely on TERRAMYCIN for its outstanding safety, effectiveness and excellent tolerability. Not a single case of phototoxic reaction, blood dyscrasia or neurologic disturbance directly attributable to TERRAMYCIN has been reported in more than 3,000 clinical papers in the last 12 years. *In your practice, the next infection you see will very likely be "Terra-responsive."*



Oroya fever (Carrión's disease), prevalent only in certain valleys of the Andes, is characterized by a rapidly evolving, febrile pernicious anemia. The infecting organism is *Bartonella bacilliformis,* a gram-negative, flagellated organism, transmitted by night bites of the phlebotomus, or sand fly. The organism is unmistakably identifiable in blood films—no other human pathogen even slightly resembles it. The mortality rate of untreated Oroya fever can be as high as 40 per cent (in all probability, this was the disease which decimated Pizarro's army in the 16th century). Treatment with Terramycin produces dramatic reduction of fever and a stabilized blood count in 48 hours or less.

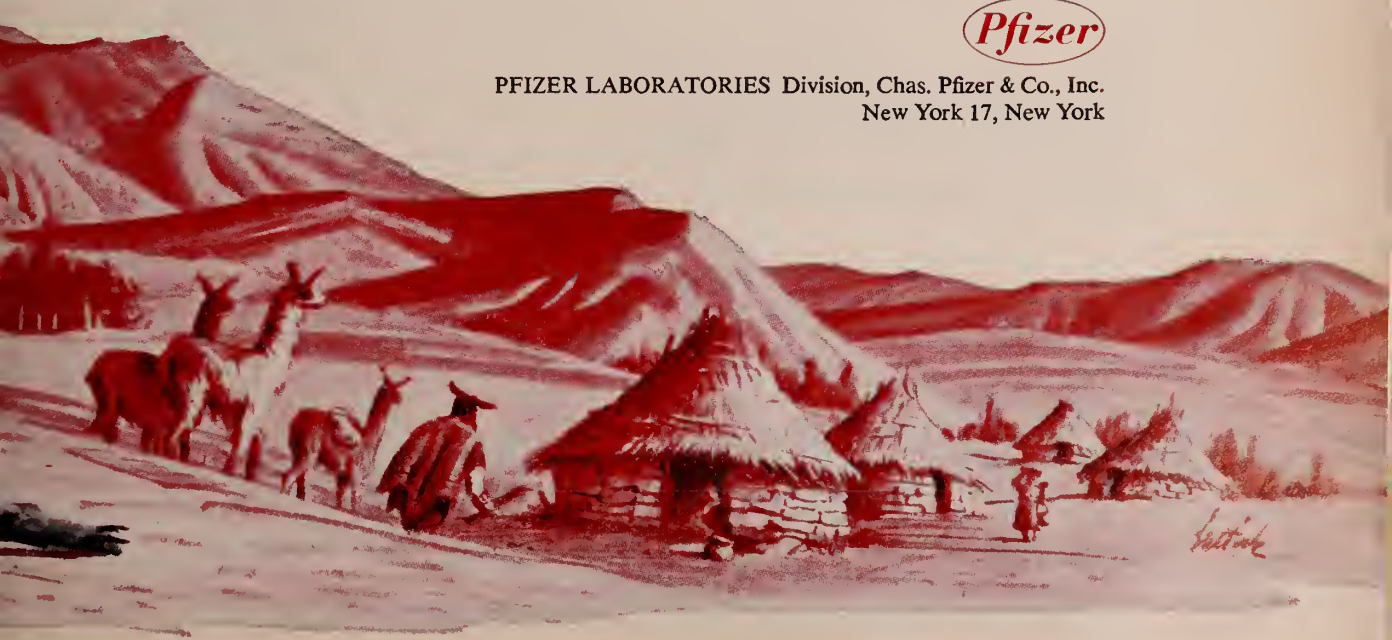


IN BRIEF The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using. *More detailed professional information available on request.*

Science for the world's well-being®

Pfizer

PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc.
New York 17, New York



THIS IS THE COLOR OF PROTECTION



BETADINE—The only germicide whose color indicates a germ-free environment—provides lasting protection and is the most potent non-irritating topical antiseptic known.

for the first time...
a universal microbicidal agent that does not sensitize or retard healing

Betadine®

Povidone-Iodine NND

Kills bacteria, viruses, fungi, yeasts and protozoa on contact. Non-injurious to skin, exposed tissue or mucous membranes.

Products available: Betadine Solution • Betadine Aerosol Spray • Betadine Vaginal Douche • Betadine Vaginal Gel • Betadine Shampoo • Betadine Ointment • Betadine Swab Aids • Betadine Surgical Scrub •

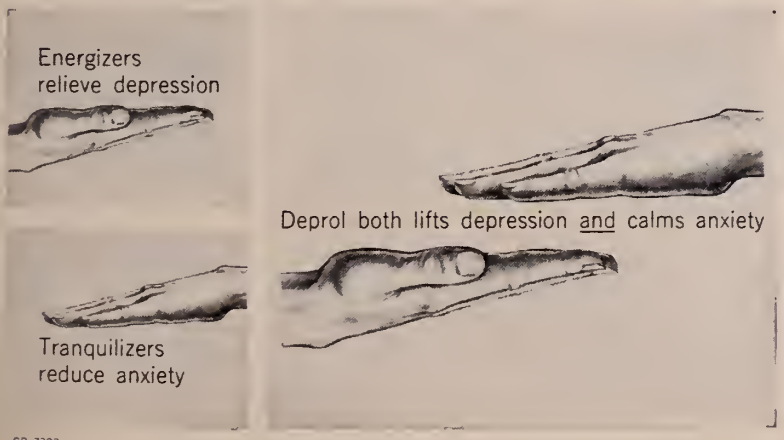
PHYSICIANS PRODUCTS CO., INC.
PETERSBURG, VIRGINIA

LIFTS DEPRESSION ...AS IT CALMS ANXIETY



"I feel like my old self again!" Balanced Deprol therapy has helped relieve her insomnia and fatigue – her normal energy, drive and interest have returned.

Brightens mood...relaxes tension



Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets.

Write for literature and samples.

▲Deprol▲®

WALLACE LABORATORIES
Cranbury, N.J.

CD-7393



Robitussin®

glyceryl guaiacolate

For the special care that winter coughs demand, both Robitussin formulas contain glyceryl guaiacolate which enhances the flow of Respiratory Tract Fluid (RTF) almost 200%.

Of practically all drugs now used clinically as expectorants, glyceryl guaiacolate exerts the most intense and prolonged action.

Increased RTF promotes bronchial drainage by liquefying tenacious sputum and exerts a soothing, demulcent effect on irritated bronchial mucosa that helps reduce the frequency of dry, tickling, unproductive coughs.

Robitussin A-C also contains pheniramine maleate to control associated allergic manifestations and codeine phosphate to suppress persistent, unproductive coughs.

Formulas—Robitussin: Glyceryl guaiacolate 100 mg. per 5 cc. Robitussin A-C: Glyceryl guaiacolate 100 mg., Pheniramine maleate 7.5 mg., Codeine phosphate 10 mg. per 5 cc.

A. H. Robins Co., Inc., Richmond 20, Virginia

RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.

Also available without codeine as

'EMPRAZIL'®

TABLETS



BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N.Y.

SAINT ALBANS
PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

STAFF

James P. King, M.D., Director

Daniel D. Chiles, M.D.
Clinical Director

James K. Morrow, M.D.

Silas R. Beatty, M.D.

William D. Keck, M.D.

Edward W. Gamble, III, M.D

J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.

Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: DAvenport 5-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Phone: CLifford 3-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
B. B. Young, M.D.
Phone: DIckens 6-7691

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 218, Ext. 55 and 56

for over 12 years dependably effective



a family of products
for family cold needs

CORICIDIN®

for colds

Schering

CORICIDIN,® brand of antihistamine-analgesic-antipyretic compound.



Cleanliness is more than a virtue at Lilly; it is a routine. It starts with vacuum-cleaning the drums filled with raw material even before they enter a Lilly warehouse. It is the first of an endless list of rules that have become a way of life for Lilly employees. Although meticulous housekeeping has little to do with technical know-how, it adds immeasurably to the quality of the finished product.

Eli Lilly and Company · Indianapolis 6, Indiana, U.S.A.

Lilly

390016

Journal of the Tennessee State Medical Association
OWNED AND PUBLISHED BY THE ASSOCIATION
Volume 56 JANUARY, 1963 No. 1

Simultaneous Roentgen Examination of the Biliary and Urinary Tracts

H. COLBY GARDNER M.D., and DAVID S. CARROLL, M.D.,* Memphis, Tenn.

The authors demonstrate the visualization of both the biliary tract as well as structures of the urinary tract by the use of one injection of a contrast medium.

Earlier studies by others have indicated that the urinary and biliary tracts of patients can be opacified for simultaneous roentgen examination by injecting a mixture of two well-known contrast agents.[1-6] The components of the mixture employed in these earlier trials were the urographic medium diatrizoate methylglucamine (Renografin) and the cholecystographic-cholangiographic medium iodipamide methylglucamine (Cholografin). The mixture, which consists of 40% of diatrizoate base and 20% of iodipamide base, is supplied commercially as Duografin.† The solution contains 38% of firmly bound iodine.

The present report, which describes the use of Duografin in a series of 68 patients, confirms the earlier studies. As will be shown, the satisfactory visualization of both the urinary and biliary tracts occurred in the great majority of the patients receiving Duografin.

Case Material and Procedures

The Patients. Thirty-two of the 68 patients in the study group presented with acute abdominal symptomatology and their radiographic examination was done under emergency procedures. No attempt was made to prepare the bowel of these 32 patients. The value of dehydration was fully appreciated, for example, but was not practical with some of these patients. Indeed, some patients with acute abdominal symptomatology were receiving intravenous fluids before and during the examination with Duografin.

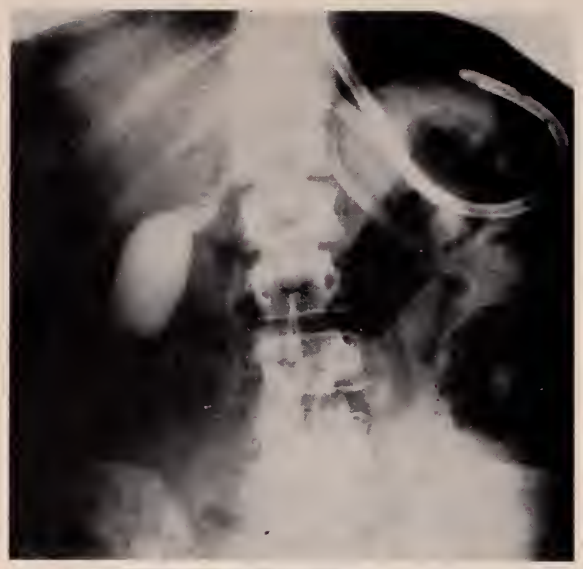
Most of the remaining 36 patients had an abdominal mass or vague chronic abdominal complaints. In some cases, the medium was employed to demonstrate the gallbladder and bile ducts in patients with intestinal obstruction or biliary fistulas, or in those who had not visualized with oral medium given previously. In the nonemergency studies, the usual preparation of the patient with laxatives, cleansing enemas, and overnight dehydration was routinely observed.

Roentgenography. The first films, taken just prior to the injection of the radiopaque medium, were posterior-anterior upright chest and supine anterior-posterior abdominal exposures. If an upright chest film could not be taken because of the patient's clinical status, then an anterior-superior supine chest view was taken along with a left-lateral decubitis abdominal film (horizontal beam).

The 1 cc. test dose of medium was then injected intravenously and the patient observed for evidence of sensitivity during a ten to twenty minute period. Unless evidence of sensitivity was observed, the final injection of the contrast medium was given over a five to ten minute period, the injection consisting of 40 cc. of the undiluted

*From the Department of Radiology, University of Tennessee College of Medicine, and City of Memphis Hospital, Memphis, Tenn.

†Also supplied as Cardiografin and Gastrografin.





FIGS. 1 and 2. 42 year old Negress. Acute cholecystitis was suspected, but the gallbladder, cystic duct, common hepatic duct and common duct are demonstrated. Acute cholecystitis was excluded.

Duografin or 80 cc. of the half-strength preparation.

Urography. Immediately after the medium was injected, an anterior-posterior abdominal film was taken. Films were also taken after 15 and 30 minutes. With the taking of the 30 minute film, the urography was complete, unless there was indication for delayed filming.

Cholecystography and cholangiography. Films of the right upper quadrant in the anterior-posterior position were made 40, 50, and 60 minutes after the injection. Optimal opacification of the biliary ducts was expected within these time limits and the gallbladder as well, if normal, was expected to show some opacification by the end of the first hour. The next films were made 2, 4, and 24 hours after the injection of medium. With normal hepatic excretion and normal biliary ducts, maximal opacification of the gallbladder was expected in 3 to 5 hours after the medium was injected.

Medium appeared in the bowel during the first half-hour after its injection in some

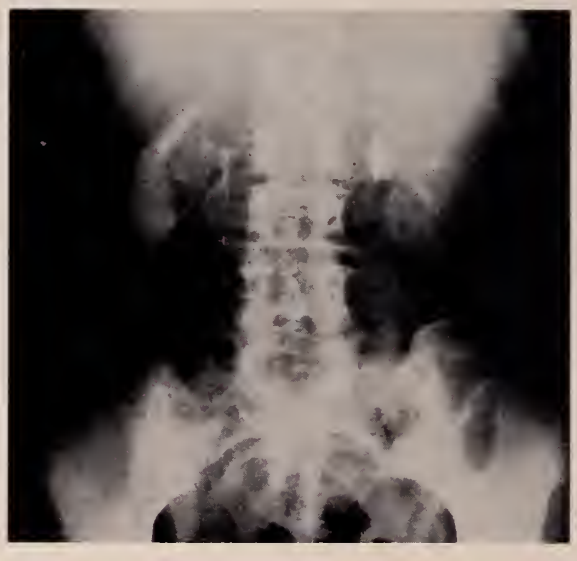


FIG. 3: 28 year old colored man. There was non-opacification of the gallbladder and biliary ducts. This film taken 24 hours following injection demonstrated Duografin throughout the bowel. At operation, the suspected diagnosis of cholecystitis and choleliathesis was confirmed.

Table 1

OPACIFICATION OF URINARY AND BILIARY TRACTS FOLLOWING THE INJECTION OF DUOGRAFIN

Urography

Total No. of Patients	*Definite Opacification*	*Very Faint or No Opacification*
68	58	10

Cholecystography and Cholangiography

Total No. of patients	*Gallbladder and Ducts*	*Gallbladder Only*	*Ducts Only*	*Bowel Only*	*Opacification Absent*	*Not Evaluated*
68	21	15	8	5	12	7



FIG. 4. 25 year old Negress. Normal study except for duplication of the left renal pelvis and ureter.

cases, although its presence was usually indicated more definitely in later hours.

Results

Urography. Of the total series of 68 patients, 58 had adequate urograms for purposes of diagnosis following the injection of Duografin. Of the remaining 10 patients in whose films little or no opacification was evident, 3 had severe bilateral renal disease and 4 had slight elevation of blood urea nitrogen. Failure of opacification in the remaining 3 patients was unexplained.

Cholecystography and Cholangiography. Of the entire group of 68 patients, opacification of some part of the biliary system or of the bowel was observed in 49. Of these 49, 21 had both the gallbladder and bile ducts visualized, 15 had visualization of the gallbladder only, 8 had only the ducts visualized, and 5 showed evidence of medium in the bowel but not in the gallbladder or the ducts. Of the remaining 19 patients, 12 had no opacification of the gallbladder, ducts, or bowel and 7 could not be properly evaluated. One of these 7 patients had cystic duct obstruction and the gallbladder was removed in 6.

Comment

The usefulness of Duografin is well shown by the results summarized in table 1. Following a single injection of the medium, visualization of the urinary and the biliary tracts occurred to a degree useful for diagnosis in the majority of the 68 patients studied.

Six of the patients presented diseases of the urinary tract, contributing to the presenting clinical picture, and 11 had urinary tract abnormalities which were noncontributory to the presenting picture. Eight patients had pneumonitis or cardiac decompensation which was considered related to the acute illness.

Of the 12 patients with complete biliary nonopacification, 2 had advanced liver disease, 2 had both gallbladder and common duct calculi, 5 had gallbladder calculi only, and 1 had a pancreatic cancer. It is obvious from these findings that complete biliary nonvisualization, when it occurred, was lacking in specificity of pattern.

Four of the 5 patients with contrast medium in the bowel only (not in the gallbladder or ducts) had proved cholelithiasis.

Three patients experienced slow opacification of the gallbladder. In one patient with abdominal tuberculosis and diffuse hepatic involvement the gallbladder was visualized after 4 hours; another with sickle cell crisis and advanced hepatic sickling showed visualization after 5 hours; and in one with nothing more definite than acute pyelonephritis the gallbladder was visualized after 24 hours.

Except for an occasional case of pruritus with or without skin eruption, which responded quickly to antihistaminics and seda-

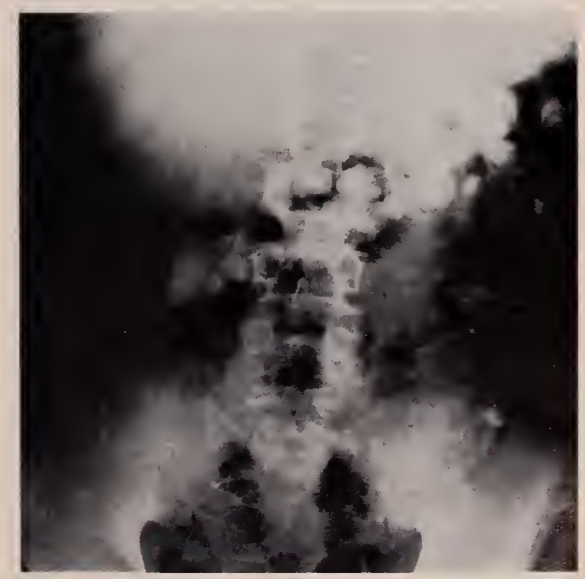


FIG. 5. Slide made 15 minutes following injection, showed beginning opacification of the gallbladder and common duct.



FIG. 6. Upright spots of the gallbladder, taken 3 hours after injection.

tives, only 1 patient experienced any form of reaction to Duografin. This patient developed an asthmatic attack following the injection of the medium but responded well to epinephrine and oxygen. She had failed to respond to the sensivity test. In the experience and opinion of the authors, the usual sensitivity testing procedure is of no value in predicting the likelihood of a drug reaction.

Summary

The present investigation was undertaken in an effort to extend the usefulness of radiography in the study of the abdomen. Sixty-eight patients with adequate follow-up are presented. Good opacification of the urinary tract was noted in films from 58 and very faint or no opacification in 10 of the patients.

Visualization of the gallbladder and/or the bile ducts occurred in 44 patients of the series, and medium was observed in the bowel only of 5 additional patients. No opacification of any part of the biliary system or of the bowel occurred in 12 patients and the 7 remaining patients could not be properly evaluated.

Side reactions were insignificant except in one patient who developed an attack of asthma which responded to epinephrine and oxygen.



FIG. 7. 54 year old Negress. This film (made 30 minutes following injection) shows the gallbladder well, cystic duct, common hepatic duct, and common duct. The preliminary film of the abdomen showed multiple small calcifications within the parenchyma of the right kidney. Retrograde pyelography was advised to further study the right renal pelvis.



FIG. 8. A film 40 minutes after injection. The patient has had a cholecystectomy. There is good demonstration of the bile ducts as well as definite evidence of Duografin within bowel.

It is concluded that Duografin is especially useful at least in selected patients with acute abdominal symptomatology.

References

1. Shehadi, W. H.: Simultaneous Intravenous Cholangiography and Urography, Surg., Gynec. Obst. 105:401, 1957.

2. Shehadi, W. H.: Experiences with Duografin, Acta radiologica 53:284, 1960.

3. Garfinkel, B., and First, N. J.: Simultaneous Roentgen Examination of the Urinary and Biliary Tracts with Duografin, Radiology 70:243, 1958.

4. Warres, H. L., and Nelson, F. L.: The Use of Duografin in Diagnosing Intra-abdominal Masses, Missouri Med. 58:21, 1961.

5. Orloff, T. L.: Simultaneous Cholecystography and Urography with a New Medium, Duografin, Am. J. Roentgenol. 80:618, 1958.

6. Shehadi, W. H.: Simultaneous Pyelography and Cholecystography, Ann. New York Acad. Sci. 78:861, 1959.

Demecarium Bromide: Analysis of Its Action in Selected Group of Glaucomas.*

ALICE R. DEUTSCH, M.D. and WM. M. ROWLETT, M.D., Memphis, Tenn.

Despite recent important advances in the medical treatment of glaucoma, miotic therapy is still the favorite method of control in simple chronic glaucoma, and great interest has been given to the anticholinesterase drugs, especially to those which are supposed to be substituted for DFP (di-isopropyl flurophosphate), namely phospholine iodide (echothiophate iodide) and Humorsol (B.C. 48 = demecarium bromide).

Demecarium bromide 1% was recognized as a powerful hypotensive agent by Gittler and Pilldt.[1] They found a reduction of intraocular pressure in 50% of chronic glaucomas in an observation period of two weeks. Among the acute glaucomas, 3 showed a rapid decrease in tension. According to the authors, pre-treatment with eserine blocked the action of demecarium. Becker and associates[2] achieved a reduction in intraocular pressure to below 20 in 54% of patients under short term treatment. Drance[3] described the effects of demecarium bromide on normal eyes. A marked fall in intraocular pressure occurred as late as 12 hours after instillation, and persisted up to 3 to 5 days. Thirty-eight among 40 glaucomatous eyes showed considerable drop in the intraocular pressure after instillation of a 0.25% or 0.1% solution of the drug. Thirty of 34 eyes with chronic simple glaucoma revealed a rather large increase in the facility of outflow. Three out of 4 eyes which did not show any increase in the facility of outflow showed, nevertheless, a decrease in intraocular pressure. Krishma and Leopold[4, 5] demonstrated that demecarium bromide produced a fast and prolonged miosis in normal rabbits and human eyes. The same authors also observed 106 glaucomatous eyes with various types of glaucoma and reported a favorable result in 87% of their cases with 0.1%, 0.25% and 0.5% solutions respectively, with applications changing from twice a week to twice a day. Terner and associates[6] studied 47 patients with glaucomatous eyes, under observation at the Glaucoma Clinic of the University of Pittsburgh School of Medicine, during a period ranging from 6 weeks to 18 months. 53% were controlled on demecarium bromide. Of the previously uncontrolled eyes, one-third were controlled. Among the 31 eyes treated for over 6 months, 15 or 50% were controlled at 24 mm. Hg. Only one eye of this group was controlled at 20 mm. Hg.

The cholinesterase content of the iris and ciliary body in glaucomatous patients has not been established accurately, but the level in the blood was found to be normal. Since anticholinesterases are used continuously over long periods of time while treating glaucoma, some of the drops are probably absorbed. Leopold studied the effects of anticholinesterase agents on the red blood cell and plasma cholinesterase level of normal persons and carriers of glaucoma. The drugs investigated were physostigmine salicylate, prostigmine methylbromide, DFP, phospholine iodide and demecarium bromide. Cholinesterase activity varies widely among individuals but is rather consistent in one individual. There are no diurnal variations. Only values less than the normal average were considered significant. Demecarium bromide, 0.5%, depressed the cholinesterase level in one patient for 1 to 5 hours. No effect was shown by the other drugs. Patients with long standing glaucoma were given the smallest dosage of an anticholinesterase agent which would control pressure. Blood samples were taken 1, 2, and 3 weeks after the start of treatment. Among the 11 patients studied, only the one on demecarium bromide showed signs of depression of the erythrozyte-cholinesterase level at the 2 to 3 week period. Another series was tested after at least 2 months of

*Read at the meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 10, 1962, Memphis, Tenn.

treatment. There was a depression of red cell cholinesterase in a various percentage of patients but most pronounced on demecarium bromide. DFP, which only inhibits the pseudocholinesterase in the plasma, was the only drug which showed no change whatever.

Demecarium bromide is the most powerful of the synthetic cholinesterase inhibitors. It has its greatest therapeutic effect in open angle and in aphakic glaucoma. It combines with true or specific group I (erythrocyte) cholinesterase, which is essential in the neurohumoral function of acetylcholine, in contradistinction to group II, plasma or pseudocholinesterase which is not concerned in neurohumoral transmission. It is readily soluble in aqueous solution. It is stable under ordinary conditions and does not have to be refrigerated. It is synergistic with other anticholinesterase agents, and it is not blocked by the previous use of eserine like DFP. However, it produces severe miosis, spasms of accommodation, vasodilation of the conjunctival vessels, and increased permeability of the blood-aqueous barrier. It should be used with caution in patients with potential hypersensitivity towards parasympathetic agents as in asthma, Parkinson's disease, etc. The local effect of the drug in the eyes can be antagonized by the use of atropine, with or without pyridine 2—aldoxime methiodide (2 PAM). A rapid resistance to the initial beneficial effect of demecarium bromide was observed by Ballentine.[7] A disappointing rise in intraocular pressure occurred after a comparatively short period of treatment and the same observation of failing control was made by Becker.[2] Only one-third of the initially well-balanced cases remained under good control over a six months period in spite of increased frequency of instillation and increased dosage.

In a clinic group of patients in a low income bracket and of low educational background, adequate control of the intraocular pressure has been a problem despite repeated attempts of education. These patients have the tendency to take their treatment lightly, and they are not reliable when asked to use repeated instillations. Therefore, a drug which does not need frequent instillation because of prolonged action, which is stable at room temperature, has few side-effects and is not too expensive seemed to be an ideal agent. Demecarium bromide was selected because it fulfills those requirements, at least in part. With this in mind the present study was undertaken. Attempts were made to evaluate the hypotensive effect of demecarium bromide, to ascertain its effect on the facility of outflow, to compare its effectiveness with various other hypotensive agents, and to establish the durability of the beneficial results for a given time.

Methods

Forty-seven patients, representing 89 eyes were chosen for this investigation. Those patients either attended the Glaucoma Clinic of the Department of Ophthalmology, University of Tennessee College of Medicine or the Glaucoma Detection Clinic conducted by the Department of Preventive Medicine and the Department of Ophthalmology, at the medical school. There were 73 eyes with chronic glaucoma; 9 were chronic narrow angle glaucomas. Two were aphakic glaucomas; 3 glaucomas with aphakia and 2 secondary glaucomas. The patients had initial and follow-up gonioscopy, refraction, field studies and fundus examination. Some had also initial and follow-up tonography and applanation tonometry.

As far as previous treatment was concerned:

21 eyes had been treated with pilocarpine only (2 or 4% respectively).
9 with pilocarpine and acetazolamide 250 mg. q.i.d.
14 with pilocarpine and eserine ¼% ointment.
12 with pilocarpine, eserine ¼% and acetazolamide 250 mg. b.i.d. or q.i.d.
6 with pilocarpine and epitrate 2%.
10 with carcholine 1.5% and acetazolamide 250 mg. b.i.d. or q.i.d.
1 with echothiophate iodide, acetazolamide and neosynephrine 10%.
9 had no previous treatment.
3 with DFP and acetazolamide 250 mg. b.i.d. or q.i.d.
2 with pilocarpine, epitrate 2% and acetazolamide 250 mg. b.i.d. or q.i.d.
2 with carcholine 1½%.

There were 27 surgical procedures:

10 iridencleses
3 peripheral iridectomies
3 cyclodialyses
11 cyclodiathermies

For some eyes there had been several procedures.

Demecarium bromide 0.25% was used exclusively in this investigation. It was instilled every night, every second night or twice a day, depending on the individual effect and tolerance.

The patients were divided in two groups according to the duration of observation, namely 3 months and 6 months respectively. Among 89 eyes, 44 were observed for 6 months. Nine eyes had had no previous treatment. Eighty-two eyes had had previous treatment.

Group I consisted of 45 eyes in 23 patients. Nineteen had had by tonometric measurements control on previous treatment, and 22 were uncontrolled, while 4 had not been previously treated. Following demecarium medication, 35 eyes were controlled and 10 were uncontrolled (Table 1).

Among the patients in group II who were followed for 6 months, the evaluation after 3 months was as follows: on previous treatment 7 eyes were controlled, while 32 eyes were uncontrolled; 5 eyes were uncontrolled and had no previous treatment. Following treatment with demecarium, 31 eyes were under measured control and 13 were uncontrolled. When the combined group was considered on previous treatment, if any, 28 eyes were controlled according to our tonometric standard of 22 mm. Hg. or lower; 61 were not controlled. Following demecarium bromide 66 eyes were controlled and 23 were uncontrolled as far as tension was concerned. Among the 9 narrow angle glaucomas 4 were tonometric controlled and 5 were uncontrolled.

Among the 44 eyes in group II under observation for 6 months of treatment with demecarium bromide, only 18 were controlled tonometrically, while 20 were uncontrolled; initially 31 were controlled and only 13 uncontrolled. However, in this group of 44 eyes, 37 had been uncontrolled on previous medication, if any. Three patients (6 eyes) were forced to discontinue treatment because of considerable discomfort (Table 2).

As far as tonographic control was concerned a C value of 0.15 was considered to be the normal border line. Among group I (3 months of treatment with demecarium bromide), 18 eyes were tonographically controlled and 9 were uncontrolled. Among group II, 22 eyes were tested by tonography. Thirteen were found to have a facility of outflow of 0.15 or higher. Nine eyes had a C value less than 0.15 (Table 3).

Table 1

Demecarium Treatment for Three Months or Less—Combined Group—89 Eyes

Tonometric Control of Glaucoma						
	Before Demecarium			After Demecarium		
	Group I	Group II	Eyes	Group I	Group II	Eyes
Controlled	21 (2)*	7	28	35	31	66
Uncontrolled	24 (2)*	37 (5)*	61	10	13	23
Total	45	44	89	45	44	89

*Eyes previously untreated.

Table 2

Demecarium Treatment for 6 Months—Group II—44 Eyes

Tonometric Control of Glaucoma								
Eyes	Type of Glaucoma	Before Demecarium		Demecarium 3 Months		Demecarium 6 Months		
9	Chronic Narrow Angle	2+	7—	4+	5—	2+	7—	
28	Chronic Open Angle	4+	24—	21+	7—	10+	12—	6*
2	Secondary	0	2—	1+	1—	1+	1—	
3	Chronic Open Angle with Aphakia	0	3—	3+	0	3+	0	
2	Aphakic	1+	1—	2+	0	2+	0	
44	Total	7+	37—	31+	13—	18+	20—	6

*6 patients discontinued Demecarium because of inability to tolerate

Table 3
Tonographic Control of Glaucoma with Demecarium

	Before Demecarium		Eyes	After Demecarium	
	C>0.15	C<0.15		C>0.15	C<0.15
Group I	15	12	27	18	9
Group II	—	—	22	13	9

For completeness and better demonstration of the basic procedures in this study, two short case-histories are included, one for each group.

Group I: A 41 year old colored woman has had cyclodiathermies in 1961 because of failure of medical treatment. Nevertheless medical treatment had to be continued—4% pilocarpine, eserine 0.25% and acetazolamide 250 mg. one time a day controlled her tension to 21.9 in the right eye, but in the left eye it was still 25.8. Tonogram = od = 22 C = 0.19. os = po = 18 C = 0.12. Fundus: glaucomatous cupping grade I, vision OU = 20/30. Fields contracted tube-shaped to 15° with 3 mm. white target. After 6 weeks of demecarium bromide 0.25% one daily application, the tonogram read as follows: od = po = 21 C = 0.15,—os = po = 18 C = 0.25.

Group II: A 64 year old colored woman had bilateral peripheral iridectomies in 1950. She was seen for the first time at the Glaucoma Clinic of the Department of Ophthalmology, University of Tennessee in July, 1960. Her vision equalled od = 20/50 os = 20/70; the fields were concentrically contracted to 20° with a 3 mm. white target. The discs showed a partial glaucomatous cupping. Tension under pilocarpine 4% qid. and epitrate 2% at bed-time equalled od = 30.4 mm. Hg. os = 25.8 mm. Hg. Under demecarium 0.25% at bed-time, the tension equalled: O.U. = 15.6 on May 18, 1961. Under continued treatment in January 1962, the tonogram equalled od = po (5.5) = 22. C = 0.22,—os = po (5.5) = 19. C = 0.17.

Comment

It is realized that the number of patients investigated was small, and the observation period too short to draw positive convincing conclusions. However, the presented study demonstrated the following facts:

(1) The percentage of patients controlled on demecarium bromide 0.25% in an observation period of 3 months or less, is significantly higher than under previous medication as far as intraocular tension and facility of outflow were concerned.

(2) At the end of 6 months, 41% in our own small series were still controlled by tonometric criteria, but less in number than after 3 months. We also found that the tonometric control apparently was not always better established than the tonographic control. This does not coincide with the experience of other investigators, but might be explained by the occasional addition or substitution of various other drugs. In the presence of field loss and/or uncertain regulation of tension, these changes had to be made to preserve vision.

(3) In 3 patients the severity of side-effects prompted discontinuance of medication. The severity of the side-effects decreased if the drug was continued in spite of the initial discomfort.

(4) The necessity of only a single daily instillation is a great advantage; if used at bed-time the concomitant sphincter and accommodation-spasm also is easier to tolerate.

Summary

Demecarium bromide, being a powerful long-acting cholinesterase inhibitor should not be used as initial treatment in chronic open angle and even less in chronic narrow angle glaucoma. It has proved beneficial in chronic open angle glaucoma refractory to various other hypotensive agents and in selected cases of chronic narrow angle glaucoma. It is recommended in aphakic glaucoma and in aphakia with glaucoma, in which it has proven very effective. It is also recommended in chronic open angle glaucoma in which combined various local and systemic hypotensive treatments were unsuccessful, and for occasional and particular patients who are not able to carry on a complicated combined daily medication.

We would like to thank Dr. Frank Roberts, Associate Dean of the Medical School, for his valuable help in drawing up the statistics.

The Glaucoma Detection Clinic received financial aid from the Neurological and Sensory Diseases Branch, Public Health Service, contract number SAph-77731.

The demecarium bromide 0.25% was graciously contributed by the local representative of Merck, Sharpe and Dohme.

References

1. Gittler, R. and Pilldt, B.: BC-48 in the Treatment of Glaucoma, Arch. f. Ophth. f. 157:473, 1956.

2. Becker, B. A. et al: Diagnosis and Therapy of the Glaucomas, St. Louis, The C. V. Mosby Co., 1961.

3. Drance, S. M.: Effect of Demecarium Bro-

mide (BC.48) on the Intraocular Pressure in Man. A.M.A. Ophth. 62:673, 1959.

4. Krishna, N. and Leopold, I. H.: Use of BC-48 in Treatment of Glaucoma, Am. J. Ophth. 49:554, 1960.

5. Krishna, N. and Leopold, I. H.: The Effect of BC-48 on Normal Rabbit and Human Eyes, Am. J. Ophth. 49:270, 1960.

6. Terner, I. S., Linn, Jr., J. G. and Goldstrohm, R.: Demecarium Bromide in the Treatment of Glaucoma, Am. J. Ophth. 52:553, 1961.

7. Ballentine, E.: Glaucoma—Transactions of the Fifth Conference. Josiah Macy, Jr., Foundation Publications, p. 226.

RENAL VASCULAR DISEASE AS A CAUSE OF HYPERTENSION. Brest, Albert N., Heider, Charles and Moyer John H., Am. J. Cardiol. 9: 748, 1962.

This article adds little in the way of startling facts about the effect of renal vascular disease on hypertension but draws together much of the recent information in the form of a review. It is a good typical article summating current thoughts on the subject.

The authors emphasize the prognostic significance of separating primary renal vascular hypertension from hypertension due to other causes but associated with extensive secondary renal damage. The current feeling in the literature is quite clear cut in favor of the fact that long term diastolic hypertension carries with it a high incidence of generalized atherosclerosis and the kidneys are no exception. The prognosis of a direct attack on the kidneys ravaged secondarily by an elevated pressure is relatively poor. Every effort should be made therefore to ferret out causes with primary renal vascular disease as the cause of hepertension. The literature places the incidence of primary renal vascular disease as the cause of hypertension at 5 to 20%, most studies indicating 5% to be the more likely figure. Of the various types of renal vascular disease, renal atherosclerosis is by far the most common and usually presents pathologically as arterial plaques, ascending aortic thrombus covering the mouth of the renal artery, or aortic aneurysm. Although these authors admit significant value to the Howard test (differential ureteral excretion of sodium and water) and to the 131 renogram, they believe any strongly suspected case of renal vascular disease should be submitted to an aortagram.

Several interesting observations will tend to increase the yield of positive aortagrams and should be of value in selecting which cases should be submitted to this procedure. One should watch for patients with sudden exacerbation of their hypertension or in whom malignant hypertension develops, young patients with hypertensions of unexplained etiology, hypertensives with a history of severe flank pain, marked postural variation of hypertension and finally IVP abnormalities. Of the latter findings a delayed excretion can be best identified two to three minutes after dye injection and is helpful. Also a difference of one centimeter or more between the lengths of the left and right renal shadows is found to be suggestive. (Abstracted for the Middle Tennessee Heart Association by Thomas Guv Pennington, M.D., Nashville.)

The author believes, as suggested by the two illustrative cases, that polyarthritis of the "sensitivity" type may usher in an active tuberculous lesion elsewhere in the body.

Tuberculous Rheumatism*

GLENN CLARK, M.D.,* Memphis, Tenn.

In 1897, Poncet[1] described a condition which he called "rheumatisme tuberculeux," which he thought represented a polyarticular disease distinct from tuberculous arthritis, but probably related to some "allergic reaction" to tuberculous infection. Several types of clinical pictures have been attributed to this condition—one being indistinguishable from chronic rheumatoid arthritis, another from hypertrophic arthritis, and yet another from rheumatic fever. The concept of tuberculous rheumatism as a disease entity has never gained wide acceptance in this country. In fact, many competent investigators have denied its existence. The two cases which follow are presented as examples of acute migratory polyarthritis occurring in association with the onset of extrapulmonary tuberculosis. In these cases it is difficult to deny the similarity of the joint disease to that seen as a manifestation of hypersensitivity to infection with other organisms.

Case No. 1. W. P., a 37 year old Negro, was admitted to the John Gaston Hospital on April 11, 1960 complaining of severe pain, swelling, and tenderness involving the right shoulder, right elbow, right wrist, right knee, right hip and both ankles—all of 24 hours' duration.

The patient gave a history of having undergone an orchiectomy 10 days previously for what subsequently had been proved to be tuberculosis of the testis and epididymis. Associated with the onset of his complaints was photophobia and swelling of the left eye.

There was a *past history* of gonococcal arthritis 14 years previously which had been resolved, without residual joint disease, with penicillin therapy.

Physical examination: T. was 99°, P. 72, R. 18, and B.P. 110/70. The patient was a well developed, well nourished colored man in much distress, caused by pain and swelling of most of the joints on the right side of the body. There was swelling and lacrimation of the left eye with marked engorgement of the vessels. There was visual loss on gross testing. Examination of the heart, lungs and abdomen showed no abnormality. Examination of the extremities showed the following: The right elbow was tender, warm, swollen and painful on motion. The right shoulder showed some tenderness and extreme pain on motion. The right knee was painful and tender. The right ankle was swollen and showed marked pain on motion. There was tenderness at the metatarsophalangeal joints of several of the toes of the right foot. The remainder of the physical examination was entirely within normal limits except for the scar of recent orchiectomy.

Laboratory data: Urinalysis was within normal limits. WBC. count was 15,500 with a slight shift to the left. Subsequent studies showed a monocytosis varying from 6 to 24%. Smear and cultures from the urethra and joint fluid were negative. Uric acid on 4 examinations was 3.9 mg.% or less. ASO. titer was 100 Todd units. PPD #1 applied to the right arm was markedly positive. Tests for sickle disease were negative. Multiple joint x-ray studies showed no unequivocal evidence of joint disease.

Hospital course: During the first few days the patient showed some migration of his joint complaints, with involvement of the left wrist and right knee remaining somewhat constant, and the remainder of the joint symptoms improving markedly. He was started on isoniazid and PAS. The iritis was treated with cortisone drops and conservative management and gradually improved. A synovial biopsy of the left wrist was reported as showing chronic synovitis "consistent with rheumatoid arthritis." The patient was discharged from the hospital on June 8, 1960 and after a year's follow-up in the out-patient department was found to be completely free of joint symptoms.

Case No. 2. E. D., a 27 year old Negress entered the John Gaston Hospital on May 8, 1961 complaining of joint pain, swelling and stiffness in both knees of 2 months' duration.

Approximately 2 months before admission she noticed pain, swelling and stiffness in both knees. This was severe for about 1 week and she was unable to work, stayed home and treated herself with aspirin and hot packs. Although there was some initial improvement on this conservative management, the joint symptoms later spread into both ankles, both elbows and both wrists. About a month before admission the patient noticed a swollen, hot, red "kernel" in her neck. In the week before admission she had had chills and fever. There had been a 30 pound weight loss

*From the Department of Medicine, College of Medicine, Memphis, Tenn.

and occasional night sweats. The family history revealed that the mother-in-law had died of tuberculosis.

Physical examination: P. was 64, T. 100.4°, B.P. 96/64. The patient was a well developed fairly well nourished colored woman, suffering from acute joint distress. Head was normal. Examination of the neck showed 2 firm, tender nodules which were warm to the touch in the anterior cervical chain on the right. Heart, lungs and abdomen showed no abnormality. Examination of the extremities showed the soles of the feet to be very tender, the patient withdrawing to the slightest touch. Ankles and knees were stiff with a decreased range of motion. Both wrists and some of the metacarpophalangeal joints of the hands were tender and painful in motion. There was limitation of motion in both elbows.

Laboratory data: Urinalysis showed pyuria and a culture was positive for hemolytic staphylococcus. (Pyuria cleared after two days of Gantrisin therapy.) STS was nonreactive. A sickle preparation was negative. The blood showed a P.C.V. of 37, W.B.C. count of 5200, neutrophils 57, eosiniphiles 1, lymphocytes 32 and monocytes 8. Sedimentation rate was 41 mm. in one hour. L.E. preparation was negative. Culture from the cervical node was positive for acid-fast bacilli. PPD #1 was 4+ with vesical formation. RA test was negative; ASO. titer was 200 Todd units. Gastric washing showed no acid-fast bacilli. Multiple x-ray studies showed no abnormalities of the joints.

Hospital course: The patient's working diagnosis was considered to be tuberculous adenitis with secondary tuberculous rheumatism. Biopsy of the cervical node was consistent with caseous tuberculosis. The patient was started on isoniazid and streptomycin, and showed a dramatic improvement of her joint symptoms.

In the out-patient department she was followed through a normal pregnancy without return of symptoms.

Discussion

In the early part of the century there was a popular conception in Europe that some occult relationship existed between rheumatoid arthritis and tuberculous infection. In 1934, Brav and Hench[2] in this country published a statistical study which demonstrated no increased incidence of familial tuberculosis or associated tuberculosis in 250 cases of rheumatoid arthritis as compared to the findings in 250 controls. This convincing study was so impressive that the term Poncet's disease has been deleted from more modern reviews of arthritis and rheumatism. However, the same authors did find and report 8 cases in which tuberculosis was demonstrated in single joints in patients with polyarthritis. In the 2 cases reported here, an acute migratory polyarthritis appeared at the time of onset of extrapulmonary tuberculosis. The clinical features of the joint disease are markedly like those seen in other infections during the migratory or "hypersensitivity" stage. We are aware of one case in which a migratory polyarthritis in the absence of streptococcal infection was thought to be gonorrheal. The patient was discharged from the hospital and one year later was found to have tuberculous arthritis in the right elbow.

It seems that, until more evidence is presented that tuberculous arthritis cannot have its onset as a "migratory rheumatism," a careful search for tuberculosis should be made in acute arthritis of obsecure etiology. Early therapy may then prevent occurrence of the classical destructive tuberculous joint disease.

References

1. Poncet, A.: Lyon/med. 99:65, 1902.
2. Brav, E. A. and Hench, P. S.: J. Bone & Joint Surg. 16:839, 1934.

CLINICAL NOTES FROM THE TENNESSEE HEART ASSOCIATION

MYXEDEMA AND HEART DISEASE

WESLEY H. STONEBURNER, M.D.,
Chattanooga, Tenn.

The concept of myxedematous heart disease has been a subject of much controversy. Is this a specific disease of the heart or merely a manifestation of the myxedematous state? Present opinion seems to favor the latter. However, myxedema may frequently be associated with arteriosclerotic heart disease and hypertensive vascular disease and the recognition of this fact may be of considerable importance in the management of these diseases.

Myxedema heart was originally described by Zondek in 1918. He described patients with severe myxedema found to have a grossly and generally enlarged cardiac silhouette with weak pulsations and slow indolent heart action often associated with normal or moderately elevated blood pressures. Electrocardiographic abnormalities were recognized consisting primarily of low voltage of all complexes particularly of the T waves. He also recognized that all these changes reverted toward normal following therapy with dessicated thyroid.

Fahr,[1] in 1925, confirmed Zondek's findings and described apparent right heart failure which failed to respond to bed rest and digitalis but was completely cured by dessicated thyroid.

Lerman, Clark and Means,[2] in 1933, demonstrated that the enlarged myxedema heart reverted to approximately normal size within three to six months following treatment. Failure to decrease in size was generally associated with previous long standing hypertension. They also noted that the return to normal of electrocardiographic findings was generally in proportion to the degree of decrease in the heart size. They concluded that congestive heart failure, when it occurred in myxedema, was generally associated with arteriosclerotic and hypertensive heart disease.

Fishberg,[3] in 1924, demonstrated evidence of increased arteriosclerotic changes in major arteries and in the kidneys of patients dying of myxedema. Clinical pictures typical of hypertension in addition to myxedema were noted in some of his patients.

Kountz[4] described an increase in medial degeneration of the walls of larger blood vessels in patients with myxedema and associated this with an increased incidence of rupture of the aorta in these patients.

Gilligan, Volk, Davis and Blumgart[5] described the changes noted in the basal metabolic rate, serum cholesterol and the clinical aspects of myxedema following total ablation of the normal thyroid gland. In their studies when symptoms of myxedema occurred the serum cholesterol was usually 300 mg. % or above, and the B.M.R. minus 30 or less. They also noted that small doses of dessicated thyroid (⅛ to ¼ gr.) would control the symptoms of myxedema, significantly decrease the serum cholesterol but only slightly increase the basal metabolic rate.

Blumgart and associates,[6] after studying patients treated either with I^{131} or total thyroidectomy for control of advanced rheumatic heart disease or chronic corpulmonale, concluded that there was no greater incidence of coronary atherosclerosis or degeneration of the aortic wall in these as compared with euthyroid patients. It must be noted, however, that the majority of his patients so treated were given small doses of thyroid gland to control manifestations of severe myxedema.

Relative to whether or not coronary atherosclerosis in patients with severe myxedema is a product of their primary disease, several interesting observations should be made. There is little doubt that angina pectoris or even acute myocardial infarction can be precipitated by too vigorous treatment of the myxedematous patient. Mussio-Fournier[7] describes a rare group of patients with angina pectoris produced by cardiovascular disturbances of purely myxedematous origin and completely relieved by treatment. More often, however, angina pectoris manifests itself after treatment of certain myxedematous patients with thyroid substance and occurs whenever the elevated metabolic activity increases the work load of the heart to the point where coronary insufficiency occurs.

The recognition of potential coronary insufficiency in myxedematous patients be-

comes important in planning their treatment. Douglas and Samuel[8] presented an interesting guide to this problem after analysis of the electrocardiograms of a group of properly diagnosed myxedematous patients before and after treatment. They stressed the significance of T wave changes in the V leads. Flat, inverted or diphasic T waves in V1 through V4 suggest hypothyroidism. These changes are usually reversed by treatment. Inversion of T waves in leads I, AVL and V5-6 suggests arteriosclerotic heart disease. When T waves are flat or inverted in V1 through V6, the probability may be that the patient has myxedema plus coronary heart disease and treatment must be cautious.

There is much to support a now prevalent belief that all of the criteria for the diagnosis of myxedema heart can be satisfied by the assumption that there is an associated pericardial effusion. Kern and associates,[9] in 1949, first presented this concept. When the effusion is of long enough standing and great enough, signs of right heart failure may develop which do not respond to treatment other than thyroid gland substance. All physical signs, x-ray and electrocardiographic findings associated with severe myxedema will support the diagnosis of hydropericardium and do not necessarily imply such an entity as myxedema heart.

It is of interest that the pathologic findings described in myxedema heart disease are common to those of beri-beri heart disease. Administration of vitamin B_1 however does not alter myxedema. This could imply that both vitamin B_1 and thyroid hormone are necessary to prevent the pathologic changes noted in the heart in the absence of either.

The afore mentioned considerations do not tend to support the existence of a specific entity of myxedema heart disease. However, we must recognize that patients with arteriosclerotic heart disease or hypertensive heart disease may have myxedema which may be overlooked. The cautious treatment of the myxedematous state may actually bring about improvement in their organic heart disease. The usually easily recognized symptoms of myxedema may, particularly in the elderly individual, escape the attention of the clinician. When hypertension and an enlarged heart are found associated with an electrocardiogram showing low voltage with flat to inverted T waves hypothyroidism must be suspected.

References

1. Fahr, G.: Myxedema Heart, J.A.M.A. 84:345, 1925.

2. Lerman, J., Clark, R. J. and Means, J. H.: The Heart in Myxedema, Ann. Int. Med. 6:1251, 1933.

3. Fishberg, A. M.: Arteriosclerosis in Thyroid Deficiency, J.A.M.A. 82:463, 1924.

4. Kountz, William B.: Vascular Degeneration in Hypothyroidism, A.M.A. Arch. Path. 50:765, 1950.

5. Gilligan, D. R., Volk, M. D., Davis, David and Blumgart, H. L.: Therapeutic Effect of Total Ablation of Normal Thyroid on Congestive Heart Failure and Angina Pectoris. VII Relationship Between Serum Cholesterol, Basal Metabolic Rate, Clinical Aspects of Hypothyroidism, Arch. Int. Med. 54:746, 1934.

6. Blumgart, H. L., Freedberg, A. S. and Kurland, G. S.: Hypercholesterolemia, Myxedema and Atherosclerosis, Am. J. Med. 14:665, 1953.

7. Mussio-Fournier, J. C.: The Circulatory Apparatus in Myxedemia, Proc. Staff Meet. Mayo Clin. 17:212, 1942.

8. Douglas, A. H. and Samuel, P.: Analysis of Electrocardio-graphic Patterns in Hypothyroid Heart Disease, New York J. Med. 60:2227, 1960.

9. Kern, R. A., Soloff, L. A., Swope, W. J. and Bello, C. T.: Pericordial Effusion: A Constant, Early and Major Factor in the Cardiac Syndrome of Hypothyroidism (Myxedema Heart), Am. J. M. Sc. 217:609, 1949.

STAFF CONFERENCE

St. Thomas Hospital*

Thyroid Storm

DR. FRED OWNBY: This morning we have a case representing a real medical emergency. Dr. Nichopoulos will present the case.

DR. GEORGE C. NICHOPOULOS: *Present Illness:* The patient is a 22 year old white man who entered the hospital Feb. 5, 1961, with the chief complaint of vomiting blood. The day prior to admission the patient had an appendectomy for acute appendicitis at another hospital. During the operation the patient developed hypertension and tachycardia for which he received reserpine (Sandril) and cedilanid intravenously. Following operation he was semicomatose and remained so. On the morning prior to admission here he had three episodes of mild hematemesis and received 1 unit of blood. Several days prior to admission the patient had developed a swelling in front of the right ear which varied from two hours to several days in duration depending on the historian.

Review of gastrointestinal symptoms revealed that he had had several episodes of epigastric distress relieved by antacids. For about 6 years he had had polyphagia with weight loss as well as bouts of increased nervousness, weakness, palpitation and mild hypertension. Five years before, while in an institution for multiple misdemeanors, he had been told that his thyroid was overactive. He was treated conservatively with antithyroid drugs. Operation was suggested and refused. For the past 3 years because he had felt well, he had discontinued his medications.

The cardiorespiratory system was negative except for the hypertension. The remainder of system review was essentially negative except for the psychiatric history, which will be discussed later.

Physical examination: On admission the B.P. was 150/70, the P. was irregular and ranged from 140 and 150 per minute; the respiratory rate was 22 to 30 per minute and T. 100.6°. The patient was a thin, semicomatose white man who required restraint because of restlessness.

The skin was warm, dry and very smooth, with sparse body hair. When the eyes were open there was a widened palpebral fissure and a suggestion of exopthalmos. The neck was supple without palpable masses except for a diffusely enlarged thyroid which was smooth, firm and without an audible bruit. The pulses were bounding and especially noticeable above the supraclavicular areas and neck. The chest was not remarkable. The heart was not enlarged and there were no audible murmurs. An irregular tachycardia was present. Bowel sounds were negative. The deep tendon reflexes were hyperactive and equal bilaterally with a tendency to unsustained clonus. There were no pathologic reflexes.

The impression on admission was gastrointestinal bleeding, cause unknown; possible convulsive state; and possibly mumps with encephalitis. The diagnosis of thyroid crisis was not considered until the second hospital day.

Laboratory studies: Admission laboratory work revealed a Hgb. of 15 Gm., PCV 45, WBC. count of 15,700 with the differential showing a shift to the left. The urine had a sp. gr. of 1.017, glucose 1+, protein 1+, casts 3 to 4, cellular, hyaline and finely granular. No cells were present. The stool was 4+ positive to the guaiac test. Spinal fluid examination on the day of admission was normal with a protein of 36 mg. per 100 ml. and without cells. On the day of admission the blood sugar was 120 mg. and BUN. 70 mg. per 100 ml. EKG. showed atrial fibrillation with a ventricular rate of about 140. Chest x-ray film was initially read as normal, but several days later a second film revealed a superior mediastinal mass which was interpreted as being an extension of the thyroid substernally.

Hospital course: Because of the past history of thyrotoxicosis and the positive physical findings, including semicoma and atrial fibrillation therapy for thyroid storm was begun. This included fluids, propyl-thiouracil and sodium iodide, and a peptic ulcer regimen was begun. The patient had oliguria and his uremia increased. Chemical and hematocrit studies remained normal and stable over the first several days except for a BUN. of 80 mg. For the next 36 hours there was not much improvement and the condition seemed to deteriorate. The patient was given parenteral hydrocortisone initially but this was discontinued because of the possible peptic ulcer. However, in view of the patient's poor clinical state this therapy was again started. Approximately 48 hours after therapy was begun the patient began to regain consciousness and become aware of his surroundings. Within the next several days the BUN. dropped to 15 mg. and he appeared to be fairly normal except for continued restlessness, nervousness, and extreme hunger.

DR. HOWARD FORMAN: Had he received any iodine therapy prior to admission to the hospital?

DR. NICHOPOULOS: He had not received any thyroid medication for 3 years prior to admission.

DR. OWNBY: Dr. Scoville will discuss this patient.

DR. ADDISON B. SCOVILLE, JR.: It was very important to think of the diagnosis of thyrotoxicosis at the time of examination, and I would like to give full credit to Dr.

---

*From the Department of Medicine, St. Thomas Hospital, Nashville, Tenn.

Nichopoulos who correctly suspected the diagnosis of thyroid storm in this patient.

The criteria for the diagnosis of thyroid storm are not absolute. McArthur and her associates[1] define it as a "life-endangering augmentation of the symptoms of thyrotoxicosis." The signs of thyroid storm differ from those of thyrotoxicosis only by a tendency for them to be multiple and more intense. Certain symptoms should suggest the diagnosis, and these include goiter, exophthalmos, tachycardia and fever. Although fever was not prominent in this case Waldstein and associates[2] considered it an essential finding in their cases of storm. If two or more of these signs are present, the possibility of thyroid storm should be strongly considered. In addition to the above, disorientation and dysfunction of the cardiovascular, hepatic and gastrointestinal systems may be prominent.

Certain danger signs may suggest that the patient with thyrotoxicosis is developing thyroid storm. First, is a change from a sweaty to a dry skin; second, is a change from excessive appetite to anorexia; and third, the change with grave prognostic significance, hyperactivity to apathy.

For those who may be interested, there are two excellent papers on thyroid storm. The first by McArthur and her associates[1] from Massachusetts General Hospital 15 years ago, included material gathered over a period of 25 years. There had been 2000 cases of thyrotoxicosis, 36 patients had storm and 24 of these died. Thus, 1.2% of thyrotoxic patients died in storm. The second reported 2 years ago by Waldstein and his associates,[2] from Cook County Hospital, summarized 300 cases covering a period from 1955 to 1958; in this series 21 had storm with 6 fatalities. Thus, of this series 2% died in storm. It is generally held that storm is less common since the advent of antithyroid drugs but the higher incidence reported from the more recent Chicago study (when antithyroid drugs were available) negates this. The whole point is that any series of patients with thyroid storm, treated in a particular way, will do well if the criteria for diagnosing thyroid storm are not strict. Although the mortality figures in the groups are comparable, storm was much more frequent in Chicago than in Boston, suggesting that the criteria for storm in Chicago were not as strict as in the Massachusetts group.

There is no good control series indicating the effectiveness of any particular measure in the treatment of thyroid storm. Prevention of storm should be our major objective of treatment. In years past surgical precipitation of storm was most common, but post-thyroidectomy storm has been virtually eliminated by proper preparation of the thyrotoxic patient for operation with drugs, etc. To eliminate medical storm, such as was seen in this patient, early diagnosis, prompt treatment, and measures to avoid storm are necessary in every hyperthyroid patient. Fever in association with thyrotoxicosis should never be considered due to concurrent infection alone, but treatment of both the infection and storm should be carried out. Specific measures to be avoided include prohibition of palpation of the thyroid in severely hyperthyroid individuals, avoidance of surgical trauma, whenever possible, in hyperthyroid patients until they have been made euthyroid, avoidance of severe emotional trauma, and prevention of reactions to such drugs as digitalis and insulin. There is a report of thyroid storm being precipitated in a hyperthyroid patient threatened with a gun.

Supportive therapy is important. Measures to provide adequate hydration and nourishment, control of hyperpyrexia and relief of anoxia should be instituted as soon as the diagnosis is suspected.

Control of the manifestations of thyroid storm is essential if the patient is to survive. This is accomplished by measures which decrease the formation and release of thyroid hormone and counteract its peripheral action. Propylthiouracil (300 mg. every 6 hours) was used in this particular case although methimazole (Tapazole—40 mg. every 6 hours) could also be given. Since these drugs are given orally, intubation may be necessary in the irrational patients. One hour after the antithyroid drug is started, large doses of sodium iodide (1 Gm. intravenously every 8 hours) by continuous infusion for the first 10 days is extremely effective in suppressing thyroid secretion.

Recently there has been increasing en-

thusiasm for the use of adrenal corticoids in the treatment of storm. Hydrocortisone, in doses of 100 to 300 mg. daily, is given parenterally not only to control peripheral manifestations and to counteract the stress of storm, but also to offset the possibility of relative or absolute adrenal insufficiency. The evidence for adrenal insufficiency is not well proven. We discontinued the use of steroids because of the patient's history of gastrointestinal bleeding on admission, but his rapidly deteriorating state forced us to reinstitute steroids and the patient's response to this therapy was excellent.

Reserpine has been given intramuscularly in doses of 2.5 mg. every four to eight hours to control the peripheral manifestations of storm. Again, because of his history of bleeding we elected not to use this drug.

We are only half way through our therapy of this patient; although the critical phase of thyroid storm has been passed his thyrotoxicosis is still present and must be treated to completion or another storm may be anticipated if certain precipitating factor appears.

DR. OWNBY: Thank you Dr. Scoville. I have asked Dr. Ross to discuss the psychiatric aspects of thyroid disorders.

DR. ROSS: He is 22 now, and he started to get into trouble at about 14 with car stealing. I believe there are three distinct episodes of car stealing, each of which resulted in a conviction and imprisonment for a variable length of time. I had the opportunity to talk to the boy this morning and there are certain things about him that I thought were significant. First, he was very polite, very warm and very eager to tell the story, particularly about his misdemeanors. This points up a psychiatric condition that is not usually associated with thyroid dysfunction. This manner is almost characteristic of what we call a psychopathic personality. This type usually stems from a poor background, an overdemanding father, and an overindulgent mother. He gave as an excuse for running away from home the fact that he couldn't get along with his father. He began to hang around town and then started stealing cars. Another thought I have that goes quite a way towards confirming this impression is that he has had no remorse about his past behavior or convictions, and may well go back to doing the same thing. He apparently has never profited by his mistakes. Although this boy has an interesting psychiatric background, it is hard to say how much might be due to his chronic thyrotoxicosis. I believe he should be classified as psychopathic personality rather than psychosis associated with thyrotoxicosis.

Mental disorders associated with thyroid disease usually are divided into two categories. There is the mental disorder secondary to thyroid hypofunction, such as the mental deficiencies of cretins, and the involutionary personalities of myxedematous patients. It has been reported that 50% of patients with myxedema have underlying psychoses. The superimposed thyroid deficiency may cover latent schizophrenia or other more serious psychotic tendency.

The second category of mental disorders is associated with thyroid hyperfunction. The patient with whom we are dealing today has thyrotoxicosis. Some writers venture to say that at least 60 to 80% of thyrotoxicosis is psychogenic in origin and that it is precipitated by the basic underlying emotional constellation of the patient. I am not speaking of the storm which is really a toxic delirium as a result of the excessive hormone. One of the hypotheses that investigators have used to back up the psychosomatic aspect of thyrotoxicosis is that it is prevalent, almost 4 or 5 to 1 in females. These investigators point out that the highest frequency of incidence is at the time of major hormonal stress in females, such as puberty, menstruation, pregnancy, lactation, and menopause, the five periods in a woman's life where there is excessive hormonal activity.

I have had personal experience with two psychotic cases in patients with severe thyroid dysfunction. One was when I was at Thayer Hospital. This patient was admitted in a severe depression and he was "worked up" medically, with essentially normal findings. Following this he was treated with electroshock for his depression. It turned out that, after he was able to give an intelligent history and we learned more about him, he was actually a manic-depressive patient and that he had come to us in the

n the
ecutive
ector

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

February 3, 1963, Is the Date for TSMA Executive Conference For State and County Officers

● An important conference for state and county medical society officers will be conducted by TSMA on February 3rd at the Hermitage Hotel in Nashville. The conference is an effort to assist in the orientation of newly elected county society officers as well as acquaint key persons in state and national medical activities with some of the issues and business facing the profession today. An official program is being sent to persons involved.

TSMA House OKs Three Proposed Legislative Bills

● Proposed state legislation approved by the TSMA House of Delegates at a special meeting on December 9, included:
(1) To allow private physicians to examine minors seeking work permits. Such examinations are now limited to Public Health or School Board physicians.
(2) To provide that physicians who give emergency care at accident scenes not be liable for civil damages in that connection.
(3) To allow Tennessee to license non-citizens who have started citizenship proceedings and who passed Tennessee licensure examinations. Such licensure would be void if a physician did not become a citizen within 5½ years.
(See resume and copies of proposed bills under "Special Item", this issue of Journal.)

Report on Actions of AMA House of Delegates

● A summary of the major actions of the AMA House of Delegates meeting in Los Angeles on November 25-28, are outlined in this issue under a "Special Item". The attendance at this session of the AMA totaled 10,908 of which 5,209 were physicians. It was the highest registration in the fifteen year history of the clinical meetings. Some 200 doctors constitute the AMA House of Delegates. For complete details see the special item elsewhere in this issue of the Journal.

Legislative Scene

● Judging from reports received in the headquarters office, proponents of King-Anderson type legislation are encouraged over the results of the November 6th elections. This stems from gains apparently made in the Senate, where backers of the Social Security approach claim several new supporters. This again means that the House of Representatives must be looked upon as Medicine's first line of defense in 1963. Certainly medical care for the aged will be a top priority issue in the 88th Congress.

One Good Way to Prevent Complaints

● When the chairman of the Mediation or Grievance Committee of a large medical society made his report to the Executive Board, he "noted that most grievance committee cases were caused by failure of the doctor to explain adequately the difference between hospital charges, anesthesia charges, and his own fee, or failure to discuss fees with the patient before providing services". It was recommended that each physician be particularly alert to the public relations value of moderating fees where the financial status of the patient warrants.

Once again we have evidence to show that a few extra minutes spent with the patient for the purpose of discussing some of the basic economics of the practice of medicine can be minutes well spent.

This is not a job for the doctor's secretary or receptionist, but for the doctor himself.

Service Dependents

● The Office for Dependents Medical Care has called attention to the fact that the retention of certain service men, beyond their normal tour of active duty has been directed by the Secretary of Defense. This poses many problems, among them the valid identification of the extendees dependents who will become eligible for certain benefits while their sponsors remain on active military duty. The extension may result in some dependents being without a valid identification card (DD Form 1173). Each card carries an expiration date of eligibility, which in the case of non-career personnel, is the same as the expected expiration date of the sponsors tour of active duty. Some eligible dependents may not have in their possession the required proof of their eligibility.

Highlights of the Keogh Law

● Here are the important highlights of the recently enacted law wherein self-employed persons may establish retirement programs.

——You must be self-employed, to be eligible.

——You may set aside 10% of your earned income, up to $2,500 a year, for a retirement fund.

——You don't have to contribute to the fund each year, nor do you have to contribute the full 10% of your earnings. You may contribute smaller amounts.

——Each year, you may deduct from the gross income, reported on your tax return, one-half of the contributions made to the retirement fund.

——If you have employees working for you three years or longer, you must include them in the retirement program.

——Except in cases of disability or death, the earliest you may start drawing benefits from your fund is when you are 59½ years old. Should you withdraw money from the fund before reaching this age, you will incur a financial penalty.

——You may postpone retirement and the drawing of fund benefits until you are 70½ years old, but not later.

——Your retirement funds must be specifically invested in one or more of these ways:

1. An annuity, endowment or similar policy.
2. Special government bonds issued for this purpose.
3. Mutual fund shares purchased by a bank out of a "custodial fund" set up with your contributions.
4. Stocks, bonds, mortgages, and other investments held in a trust account, with a bank or trust company as trustee.

TSMA Annual Meeting

● One of TSMA's most important annual meetings is in the making—Week of April 7th—Knoxville. Principal sessions and exhibits will be in the Andrew Johnson Hotel. See March issue of the Journal for day by day schedule of events.

Information of Interest

● The operating cost of the nation's 6,923 hospitals increased nearly $1 billion in 1961 over 1960—$9,387,242 against $8,420,986—Payroll total in 1961 was $6.2 billion.

—Malpractice suits show signs of leveling off but the trend of claims cost is upward, according to Medical World News, following spot check of troubled areas throughout the nation.

Public Service

THE TENNESSEE TEN

Second Called Meeting of Delegates Scheduled

● The TSMA House of Delegates will meet February 2nd in Nashville in its second called session in less than two months for the purpose of re-consideration of the two bills which the House approved at the Dec. 9th meeting.

The measures are (1) a bill to license alien physicians under certain conditions, and (2) the so-called "Good Samaritan" bill which would protect from malpractice liability physicians who render first aid in emergency situations.

TSMA's President, Dr. William J. Sheridan, issued the call in compliance with the by-laws which state that the House shall meet upon petition of 20 or more members. A petition, signed by 30 delegates, was presented to Dr. Sheridan.

Additional language has been added to both bills subsequent to their approval by the House at the Dec. 9th meeting.

A provision requiring that an alien physician must be sponsored by a component society of TSMA as a prerequisite to taking the Basic Science examination was incorporated in the bill in order to strengthen the measure.

Additional wordage, consisting of "in the absence of gross or willful negligence" was added at the end of the Good Samaritan bill at the request of the Davidson County legislative delegation which was requested by the TSMA Legislative Committee Chairman, Dr. Tom E. Nesbitt, to introduce both measures in the legislature.

Neither bill will be introduced pending action of the House of Delegates Feb. 2.

——0——

83rd General Assembly Convenes In Nashville

● The 83rd Tennessee General Assembly formally convened Jan. 7 in Nashville and began its 75-day session.

As anticipated, James Bomer, Shelbyville, was elected Senate Speaker and W. L. "Dick" Barry, Lexington, was chosen House Speaker.

The legislature was expected to mark time until Governor-Elect Frank Clement's inauguration Jan. 15.

Two paramount issues facing the new legislature: reapportionment and new revenue (TAXES).

——0——

R. H. Hutcheson Reappointed Commissioner of Public Health

● Dr. R. H. Hutcheson has been reappointed Commissioner of Public Health for Tennessee by Governor-Elect Clement.

The veteran public health officer has served in this cabinet position since 1942.

——0——

Dr. Joseph Baker Re-Named Commissioner of Mental Health

● Governor-Elect Clement has re-named Dr. Joseph Baker to the post of Commissioner of Mental Health for Tennessee.

Dr. Baker was appointed to the cabinet position by Governor Clement in 1957, just before Clement retired from office, and re-appointed by Governor Ellington.

Bass Slated For Seat on Ways and Means

● Representative Ross Bass, Democrat, sixth congressional district, is slated to be appointed to the powerful House Ways and Means Committee.

Bass will be named to the post left vacant by the defeat of Representative J. B. Frazier, Democrat, of the third district.

It was the Ways and Means Committee which has blocked the Forand Bill and the King-Anderson Bill in recent sessions of Congress.

The Kennedy administration has set the passage of a health care bill under social security as its second priority piece of legislation, just behind a tax reduction bill.

The death of Sen. Robert Kerr, and the appointment of Oklahoma's Gov. Edmundson to fill the vacancy in the Senate, has given the administration a probable additional vote in favor of Medicare. Edmundson, a 37-year-old reformist, is reported "acceptable" to the administration.

——0——

Full Schedule Slated For Dr. Edward R. Annis

● A full schedule of appearances has been arranged for Dr. Edward R. Annis, AMA President-Elect, while he is in Nashville in February.

On Sunday, Feb. 3, Dr. Annis will be the luncheon speaker at the third bi-annual TSMA Executive Conference for State and County Medical Society Officers. That night he will be guest of honor at a banquet sponsored by the Nashville Academy of Medicine.

His schedule for Monday is:

8:00 A.M.	Press Conference
10:00 A.M.	David Lipscomb College
12:00 Noon	Rotary Club, Downtown
2:30 P.M. to 3:30 P.M.	Meharry Medical School
4:00 P.M. to 5:00 P.M.	Vanderbilt School of Medicine
7:00 P.M.	WLAC-TV, "Meet The Press" program

——0——

Rural Health Committee Sets State Conference For Next October

● The TSMA Rural Health Committee has scheduled the first statewide rural health conference in Tennessee for next October.

The conference, to be held in Knoxville, will have as program topics those subjects of interest to farm people, urbanites who live in rural areas, and physicians who practice in rural areas.

The conference will be sponsored by the three organizations having representation on the committee: TSMA, the Tennessee Farm Bureau Federation, and the University of Tennessee Agricultural Extension Service.

Dr. Julian K. Lentz, Maryville, is committee chairman.

——0——

First Congress On Mental Health Set For November

● The first statewide Congress on Mental Health, to be sponsored jointly by TSMA, the Woman's Auxiliary to TSMA, and the Tennessee State Medical Association, will be held in Nashville in November.

The date was set by the steering committee, headed by Dr. Frank Luton, chairman of the TSMA Mental Health Committee.

The congress will be a state level follow-up to the first national Congress on Mental Health sponsored last October by AMA in Chicago.

depressed phase. He presented a history of having had manic episodes before. About 9 or 10 months later the patient came back in a manic state and at that time it was determined that he was severely thyrotoxic. As is often the case where one finds a manic state or very acute psychosis, the treatment of the thyrotoxicosis has to be secondary to a manageable patient. The patient must be treated and calmed down beforehand. It is interesting in many cases, particularly in instances of delusions in myxedema, that as the deficiency is corrected the delusions improve or disappear. In other words, the psychosis is improved by thyroid therapy, and yet, when one treats the psychosis associated with thyrotoxicosis and gets the psychosis under control the patients seem to be just as thyrotoxic as they were before the psychosis and then the toxic thyroid must be treated.

DR. OWNBY: Thank you Dr. Ross. Are there any comments or questions from the floor?

DR. THOMAS FRIST: I have always heard that these people have vitamin B deficiency and I wonder how important you think it is that they get rather large doses of vitamin B complex.

DR. SCOVILLE: To what extent vitamin B deficiency, though present, is responsible for the fatal outcome of storm itself, I don't think anyone knows. I would agree that, lacking information to the contrary, it makes good sense to correct any abnormality one can identify and I would advocate using vitamin B_1 since there may be evidence that these people can be depleted of this vitamin. While it makes good sense to correct the deficiency, I don't know that this really makes a difference in the successful outcome of the patient.

DR. AUBREY HARWELL: Even though his BUN. seems extraordinarily high, I believe he had had a considerable gastric hemorrhage with hematemesis and tarry stools, and I think that there may have been enough digestion and absorption of blood to have contributed a great deal to this high BUN. Probably he had oliguria at the same time and there may have been a prerenal azotemia as well. In any case it is gratifying to see that the last BUN. was perfectly normal.

DR. WILLIAM SHERIDAN: Dr. Scoville, why wait one hour after giving the propylthiouracil to give the sodium iodide intravenously, and since the propylthiouracil has to be given by mouth, why don't we give the iodide by mouth too?

DR. SCOVILLE: One can give the iodide by mouth. It has an offensive taste but there is no physiologic objection to it. The reason for giving the propylthiouracil first is to block the formation of new hormone before one gives iodide which will result in an increased formation of thyroid hormone. The management of the patient may be easier if there is less thyroid hormone stored. You might reasonably argue that if the patient is so critically ill one shouldn't even wait an hour out of consideration for long range management, but this is the reason usually given.

DR. OWNBY: This completes our discussion for today and I want to thank all who participated in this conference.

Addendum: A gastrointestinal x-ray study was done, and no reason for bleeding was found. Subsequently a thyroidectomy was performed successfully.

References

1. McArthur, J. W., Rawson, R. W., Means, J. H. and Cope, Oliver: Thyrotoxic Crisis, J.A.M.A. 134:868, 1947.

2. Waldstein, S. S., Slodki, S. J., Kaganiec, G. Irene and Bronsky, David: Clinical Study of Thyroid Storm, Ann. Int. Med. 52:626, 1960.

CLINICOPATHOLOGIC CONFERENCE

Baptist Memorial Hospital*

Benign Mesenchymoma of Kidney; Tuberous Sclerosis Complex

This 35 year old white woman was first a patient in Baptist Memorial Hospital on September 26, 1952. She had regular menstrual periods of normal length and amount of flow but some cramping, and for the 3 preceding months she had intermenstrual spotting.

Past History. In 1917 she fell from a tree with a subsequent traumatic arthritis of the left hip; subsequently she had in 1935 an appendectomy, in 1943 a miscarriage with curettement, in 1947 a left salpingo-oophorectomy (reason unknown), in 1949 frequent bouts of pyuria, and in 1949 the repair of a hernia. A son had died of an intracranial neoplasm.

On admission, the *physical examination* revealed a B.P. of 110/70. The head, chest, heart and abdomin were negative. The uterus was of normal size with an unremarkable cervix.

The Hgb. was 9.8 Gm., RBC. count 3.98 million, with slight variation in the size of the red cells. WBC. count was 5,250, segs. 55, lymphs. 31, bands 2, monos. 9, and eos. 3. Urinalysis showed sp. gr. 1.014, 2+ albumin, no sugar, acetone, RBC, WBC or casts. The Bence-Jones protein was negative. Total serum protein was 6.43, albumin 4.77 and globulin 1.66 Gm. per 100 ml., an A/G ratio of 2.9; calcium was 9.7 and phosphorus 3.9 mg. per 100 ml. X-ray of the skull showed a stippled calcification above the sella in midposition, bilateral calcification in the glomus, and the pineal was not seen. The findings were thought to indicate cerebral neoplasm, possibly a meningioma. A D&C was done and 2,430 mg. hrs. radium were given, the pathologic diagnosis being secretory endometrium.

In May, 1956, x-rays of chest, skull, G.I. series and barium enema were considered to be within satisfactory limits.

Her *second admission* was from Mar. 29 to April 9, 1960. Two weeks prior to this she had had a hemorrhoidectomy in her home town, receiving a transfusion during the procedure. During her 2-weeks hospitalization there, she became icteric; had marked nausea and vomiting but no bowel movement for 4 days prior to admission to Baptist Memorial Hospital. During her postoperative period, the urinary output was satisfactory until the day prior to admission here, when she did not void. She had severe rectal pain. There was no family history of jaundice.

Physical examination. The patient was a poorly nourished, dehydrated woman, with a T. of 99.4°, P. 110, R. 22 and B.P. 110/70. The mucous membrane was pale and dry. The lungs were clear and the heart was negative. The abdomen was soft, not tender, without masses, and no organs were palpable. The pelvis was negative. Rectal examination revealed ulcerated areas about the anus and fecal impaction.

P.C.V. was 33.5, Hgb. 10.9 Gm., WBC. count 12,700 with segs. 85, lymphs. 9, monos. 4, baso. 1 and 1 metamyelocyte; platelets were normal. Urinalysis showed sp. gr. of 1.013, protein 3+, 0-2 WBC. and 0-2 RBC./hpf and no casts. BUN. was 131 mg. and sodium 138, potassium 4.13 and chloride 107 mEq/L. Total bilirubin was 0.3 mg. per 100 ml. with the direct 0.1 and indirect 0.2.

Treatment consisted of fluids intravenously and removal of the fecal impaction under spinal anesthesia. Under treatment the urine output was 600 cc. on the 3rd hospital day and over 1000 cc. on all other days. Over the next 9 days the BUN. fell to 47 mg. and the potassium fell slightly to 3.4 mEq/L.

On Sept. 1, 1960, a barium swallow, G.I. series and barium enema, together with chest x-ray were again negative. There was some flattening of the head of the left femur and increased bone density in the acetabulum.

Her *third admission* was from Sept. 28 to Oct. 3, 1960, when her complaints were weakness and easy fatigability together with epigastric pain for 3 months. She had nocturia 2 to 3 times.

Physical examination. The patient was well-developed, slightly obese, alert and not icteric. Heart and lungs were negative. There was marked epigastric tenderness.

Urinalysis showed a sp. gr. of 1.008, protein 2+, 1-4 WBC. and rare RBC./hpf, and no casts; culture was negative. PCV. was 23.5, Hgb. 8.3 Gm. BUN. was 77 mg., plasma glucose 112 mg., and serum calcium 9.8 mg. per 100 ml. Stool was negative for occult blood. Chest x-ray was negative. She had a normochromic, normocytic anemia, and was treated by transfusion raising her hematocrit to 30.

The *fourth admission* was from Feb. 16 to Mar. 7, 1962, for anemia. She had a 10 pound weight loss, nausea and vomiting and burning substernal pain. Hematocrit was 19, Hgb. 6.2 Gm. and platelets were 1,450/100 o.i.f. BUN. was 118 mg., creatinine 11.1 mg., calcium 4.5 mg. per 100 ml., CO_2 25 and sodium 129 mEq/L. Urine culture was negative. X-ray examination showed a moderate sized hiatal hernia, but no abnormality of the stomach or duodenal bulb. She received symptomatic treatment and transfusions. The nausea and vomiting improved and the hematocrit rose to 29.

The *fifth admission* was from April 11 to April 17, 1962, for nausea and vomiting and tarry stools.

Physical examination. The patient appeared chronically ill, with a T. of 99.4°, P. 92, R. 28, and B.P. 112/60. The chest was clear. There was a grade II systolic murmur of the heart; the P.M.I. was 13 cm. from midsternal line. The abdomen had audible bowel sounds; liver, kidney and spleen were not palpable, nor masses. There

*From the Baptist Memorial Hospital, Memphis, Tenn.

was tenderness in the left upper quadrant. Urinalysis showed sp. gr. of 1.010, protein 3+, no RBC. nor WBC. nor casts. BUN. was 112 mg., P.C.V. 27.5 and Hgb. 8.8 Gm. She received conservative ulcer treatment.

The *sixth admission* (patient now was aged 44). She was admitted with vomiting of several days' duration, backache, nocturia 6 to 8 times, and easy bruising.

Physical examination showed the patient to be well developed, slightly obese, and lethargic. B.P. was 120/70; there were no murmurs nor arrhythmia. A few dry rales were heard at the right base. The abdomen was soft and not distended; peristaltic sounds were audible. There was mild upper abdominal tenderness, especially in the RUQ. A mass was palpable in the LUQ. and left flank. Urinalysis showed sp. gr. of 1.008, protein 2+, no WBC., rare RBC. and no casts. Hematocrit was 18, Hgb. 5.6 Gm., and BUN. 94 mg. She received fluids intravenously and blood transfusions. The PCV. was raised to 25.

It was decided to perform an exploratory laparotomy.

DR. RICHARD L. WOOTEN: Today I think the protocol should begin with the nursery rhyme "Rock-abye-Baby" because the case history reports that at the age of one this patient fell out of a tree and sustained trauma to her left hip. This bit of novel history sets the scene for a simple, straight-forward, uncomplicated case having some reasonable and obvious diagnosis. The only trouble is, I don't know what the diagnosis is. I wonder if at this time we could see the x-rays.

DR. JAMES L. BOOTH: This is a very interesting case. In the first film which we show on the patient, are skull films taken back in 1952. As you can see, there are some calcifications which by their location would appear to be calcifications in the basal ganglia, lying just above the sella turcica. That these calcifications are not within the skull bones themselves is proven on the AP view where they are seen also to be projected above the sella. There are some other calcifications lying more posteriorly which are in the choroid plexus.

The next film, of the right hip, was made in 1961, about ten years later. You remember, this patient had given a history of trauma and having fallen from a tree. Here on this film of the hip, we see an old degenerated hip with cystic changes in the head and in the acetabulum. We will next show two chest films made in 1956 and in 1961. One on the left is made on a comparatively recent date, 1961. There has been some enlargement of the heart in the interval. Lung fields show no change. There are no congestive changes in either lung field. The hilar areas are normal.

The next set of films, a gastrointestinal series made in 1956, present an essentially normal gastrointestinal series. You will note that no obvious mass is seen in the right upper quadrant, although we do not have a KUB or flat plate of abdomen at that time.

The next gastrointestinal series was made on February 19, 1962. This was on the fourth admission of the patient to this hospital. You obviously can see a rather large hiatal hernia present. The stomach again appears normal. Duodenal cap was normal. Again, we see a very good view of the abdomen and there is no evidence of a mass in the right upper quadrant.

DR. RICHARD L. WOOTEN: Was a gallbladder x-ray made? At any time were they able to get an intravenous pyelogram?

DR. BOOTH: No.

DR. WOOTEN: After the tree accident this patient had several entries, and I believe it would be helpful to make a mental list of various system involvements found in this case and discuss each as we come to them.

First, the central nervous system and the genital system were involved. The blood, gastrointestinal tract, cardiovascular and renal systems were also involved. On the first recorded admission a possible meningioma was diagnosed from skull x-rays. According to the protocol, I presume it disappeared because in 1956 skull x-rays were reported "within satisfactory limits." Yet at no time along the course of this woman's illness could we ever elicit any definite neurologic deficit or abnormality. The genital system had been incriminated on her first admission with the D&C procedure and radium implants and also it had been mentioned in 1943 with a miscarriage and again in 1947 with a left salpingo-oophorectomy.

Now we go to the second admission which was 8 years later and this seemed to be more related to her gastrointestinal problems—a history of jaundice with nausea and vomiting occurring following a transfusion. She had been hospitalized for two

weeks at her home town hospital for a hemorrhoidectomy. When she arrived at the Baptist Hospital, however, there was no jaundice and her bilirubin was normal. There were no physical findings of liver enlargement or tenderness. She did have a rather severe fecal impaction and ulcerated areas around the anus and probably some proctitis. Probably because of the severe rectal pain and these fecal impactions, she was aneuric for perhaps 24 hours. I would doubt seriously the diagnosis which immediately presents itself—one of possible hemologous serum hepatitis. It appeared so soon after the transfusion and the recovery was remarkably rapid. We do not know what the gallbladder function was, so we cannot remark on that possibility. X-rays of the gastrointestinal tract had been reported within satisfactory limits four years prior to this time, however. In 1962 a hiatal hernia was demonstrated for the first time.

The third admission was in 1960, and this was for anemia, weakness, and easy fatigability. She had experienced epigastric pain for the past three months and also nocturia. She seemed to be of good appearance except for marked epigastric tenderness. The epigastric pain could have been on the basis of her hiatal hernia. The blood sugar was normal, serum calcium normal, and stools were negative for occult blood. The blood urea nitrogen was found to be elevated at 77 mg.%, and she continued to have a 2+ proteinuria. Because of her progressive normocytic, normochromic anemia she was treated with transfusions.

We now have a lapse of about one and one-half years during which the patient was not seen at this hospital. Her next admission was in the mid-winter of this year, again primarily for gastrointestinal complaints. The blood urea nitrogen was found to be even higher and definite secondary hyponatremia and hypocalcemia were present. The serum potassium was 4.5 mEq/L, her hematocrit was down to 19%, and her hemoglobin was 6.2 grams.

For the first time we have documentation of cardiovascular changes. The heart was reported enlarged and a Grade II systolic murmur was heard over the precordium. We might assume that the systolic murmur was on the basis of her anemia and possibly her cardiomegaly. Her blood pressure remained normal and at no time was there any mention of arrhythmia.

I believe her most recent admission should be studied primarily from the urinary tract problem. We know that the patient had frequent episodes of pyuria. Apparently three years after the first episode of pyuria she was beginning to show anemia and proteinuria. Then she had a short period of anuria following a hemorrhoidectomy. The first record of nitrogen retention was in 1960, and the azotemia was progressive. The proteinuria was constantly present. The specific gravity tended to be generally decreased and became fixed as the disease progressed. At no time, however, were there reports of a significant degree of cellular elements in the urine, casts or blood.

This last admission was because of several days of vomiting, backache, nocturia, and easy bruising occurring probably in the very recent past. She was again found to be well-developed, slightly obese, but this time lethargic. The blood pressure was again normal and the cardiac examination was reported negative. A few dry rales were heard in the right base and the abdomen was soft and not distended. Audible peristalsis and mild abdominal tenderness, especially in the right upper quadrant, were recorded. Now we are presented with a mass which was palpable in the left upper quadrant and left flank. The hemoglobin was at its lowest (5.6 Gm.) and the hematocrit was 18%. The specific gravity of the urine was 1.008, proteinuria remaining at 2+, and a blood urea nitrogen elevated to 94 mg.%. Because of the mass it was decided to do an exploratory laparotomy.

This patient was periodically sick for 10 years with probably the same basic disease. From the protocol, I would suspect that the patient was not as clinically sick as the laboratory findings suggest, nor do do the physical findings alarm me until near the end of the protocol. During the last two years it was quite difficult to decide whether her symptoms were on the basis of some primary disease or upon the uremic state. In my opinion, our discussion should concern primarily the urinary tract. I can find no evidence of gastrointestinal disease that

could not be explained on her uremic state, except her hiatal hernia symptoms. The reference to hepatitis and the evidence presented is insufficient to make the diagnosis, much less to be tied into any sort of hepatorenal syndrome. Nausea and vomiting, tarry stools, and epigastric pain could well be on the basis of uremia and hiatal hernia. The anemia is compatible with chronic infection and azotemia. I admit that at first the anemia seemed somewhat too severe for the uremic state, but after realizing the duration of the nitrogen retention, I am inclined to go along with this etiology. I feel that our main problem today is to try to find out why this patient was uremic. During this course of this protocol there are two helpful points that we might mention. One, there was never any hypertension. Two, the one creatinine reported when compared with the blood urea nitrogen at that time showed a ratio of about 1 to 10. Only late were there sufficient or significant changes in the electrolyte and calcium levels. All of these features immediately suggest extrarenal cause for azotemia. I do not feel we have sufficient indication to suspect a prerenal azotemia that might be caused from hyperparathyroidism. We have no evidence radiographically one way or the other regarding nephrocalcinosis. I would suspect perhaps that we might see some flecks of calcium in the kidneys during one of the gastrointestinal x-ray studies. The few calcium determinations we have have been normal except toward the end of the case history. The bone changes are not present. Vitamin D intoxication is a cause for a prerenal azotemia, but we have no evidence for this. The milk-alkali syndrome, electrolyte imbalance, or bacterial endocarditis have no support for consideration. I do not feel that it is likely that this patient's renal azotemia was on the basis of such commonly thought of diseases as glomerulonephritis or intercapillary glomerulosclerosis, as edema, hypertension, and retinal changes with more urinary microscopic findings would have been present. The diagnosis of metabolic and malignant diseases such as amyloidosis, renal neoplasm, or multiple myeloma cannot be supported from the facts given in the protocol. The possibility of polycystic disease of the kidneys should be mentioned at this time. Although we would have liked to see more hematuria during the course of the disease and more cardiovascular changes, it is still a possibility. All cases of polycystic disease do not necessarily have to have hypertension, nor do they have to have consistent and significant hematuria.

By partially excluding these two general classes of causes for azotemia we are left with one more—the postrenal category. Here is an area in which we may be able to establish our final diagnosis. We have been discussing a woman who had pelvic surgery, who had frequent bouts of pyuria, who had radium implants, and one episode of anuria. It had been a progressive picture and this year led ultimately to the presence of a mass in the left upper quadrant. I would suggest that possibly this patient had been having gradual urinary tract obstruction leading to the development of hydronephrosis. This may have started back in 1960 or thereabouts and progressed to a palpable mass this year. I cannot deny the possibility of a chronic pyelonephritis in spite of the absence of cellular elements. She may have had some degree of this, not enough to produce cardiovascular changes but enough to embarrass renal function. The diagnosis of polycystic kidney disease can be made to fit with the diagnosis of hydronephrosis by allowing this woman to have her polycystic kidney kink the left ureter and produce the hydronephrosis.

Additional diagnoses might be: normocytic, normochromic anemia secondary to chronic renal disease, and hiatal hernia. Thank you.

DR. OTIS S. WARR: Dr. Booth, you have x-rays of this patient's son, would you discuss those x-rays?

DR. BOOTH: Since this patient had calcifications in the basal ganglia, I think it would be interesting to review the history of this patient's son who was in the hospital in 1953. He had the clinical triad characteristic of tuberous sclerosis, namely, mental deficiency, epilepsy, and facial lesions. The skull films show the typical calcifications not only in the basal ganglia, but also, some calcifications in the cranial bones. Because he was suspected of having a brain tumor, a ventriculogram was done and the next set

of films show on a PA and lateral skull views the typical masses protruding into the ventricle. One of the masses is apparently blocking the foramen of Monro, producing hydrocephalus. Because of the increased intracranial pressure, a Torkildson procedure was done to relieve the intracranial pressure. These cases with tuberous sclerosis have been found to have rather characteristic changes in the hands and feet. These changes have been described as cystic lesions in the phalanges of the hand and toes and you will note that this patient shows the same findings. (Fig. 1.) Holt and Dick-



FIG. 1. The hand of patient's son showing characteristic cystic areas in distal phalanges.

erson (Radiology 58: 1, 1952) reported on a group of 45 cases in which 65% showed the typical bone lesions and 40% showed the typical intracranial calcifications or sclerotic changes in the skulls of the patients. They could give no reason for the cystic changes in the extremities, but stated that these were rather characteristic and would differentiate this condition from other hereditary conditions such as neurofibromatosis and Sturge-Weber syndrome. The sclerotic densities in the skull, as reported by these authors, actually represent hyperostosis in the skull as a result of pressure from the enlarged nodes on the surface of the brain. This disease gets its name from the characteristic potato nodules which appear in the brain and apparently those that appear on the surface of the brain do cause a pressure on the surface of the skull and thus produce rather characteristic sclerotic changes in the skull. It is interesting that these authors also report that in some of their cases, there was a renal neoplasm such as we see in the patient being discussed today. I feel sure that the patient being discussed today has some of the manifestations of tuberous sclerosis and thought it would be interesting to bring out the point that this patient's son had all the characteristic findings of this disease.

DR. WARR: Dr. Johnson, would you present the pathologic findings in this case.

DR. MARVIN E. JOHNSON: The surgical specimens consisted of the spleen, left adrenal gland, and kidney. The left kidney weighed 990 Gm. and measured 22 by 12 by 6 cm. (Fig. 2.) The external surface of the



FIG. 2. Cut surface of the kidney showing replacement of the renal perenchyma by the mesenchymoma.

kidney was bosselated; a single 5 cm. retention cyst was present in the renal parenchyma. The left kidney after bisection was composed of moderately firm, golden-yellow tissue interspersed among discrete nodules of friable, mottled tan to yellow tissue having a granular appearance. There were regions of hemorrhage and necrosis throughout the nodules which varied in size from 2 to 4 cm. There is no grossly identifiable renal parenchyma. The renal pelvis appeared slightly dilated but not grossly involved by the tumor. The mucosa of the renal pelvis was smooth and focally hemorrhagic. The renal vein was normal.

Microscopic. The renal parenchyma was virtually completely replaced by a complex mixture of connective tissue elements. Vascular channels were very conspicuous, and the intervening stroma was very cellular

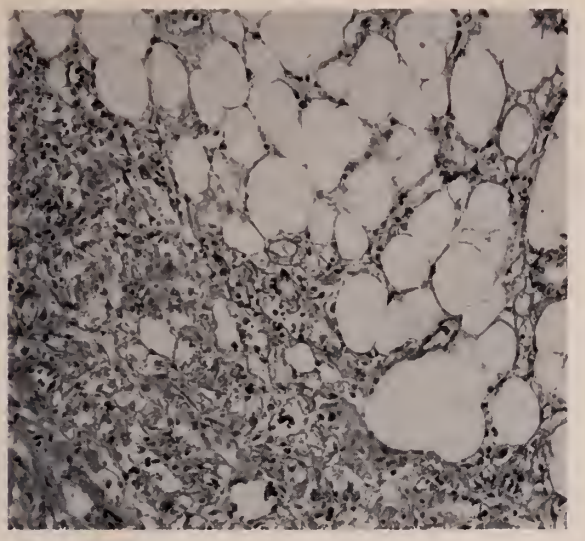


FIG. 3. Representative microscopic field showing the mixture of fat and other connective tissue elements which comprise the bulk of the complex neoplasm.

with interlacing of connective tissue fibers. (Fig. 3.) Under higher magnification the vascular channels contained red blood cells. The inner part of the vascular channel consisted largely of fibrous tissue, and in the outer portion of the vascular channel wall there were epithelial-like cells which gave portions of vascular walls a frayed appearance. The epitheloid-like cells radiated out into the adjacent intervening stroma. With the use of Verhoeff stains no elastic lamina of these vascular channels were demonstrated. So, actually, these were not true blood vessels but vascular channels more or less created by this tumor. In the intervening stroma these cells appeared elongated resembling smooth muscle cells as demonstrated by the Masson green stain. As the largest portion of this tumor was grossly fat, it is practically impossible to differentiate the fat produced by this tumor from any other type of fat. A major portion of the tumor was composed of fat which blended with septae composed of fibroblasts and smooth muscle cells.

Only in an occasional microscopic field were there intact glomeruli and renal tubules. Some of the glomeruli showed periglomerular fibrosis and hyalinization of a portion of the glomerular tuft. Most of the intact tubular-like structures contained proteinaceous material within their lumina.

Pathologic diagnoses: Benign mesenchymoma, left kidney (tuberous sclerosis complex)

Negative spleen and left adrenal gland.

President's Page



WILLIAM J. SHERIDAN, M.D.

Many problems confronting deliberating bodies are not always of easy solution especially when diligent efforts are made to impartially examine and evaluate them as they are applied to situations of varied character. Often, on casual and superficial consideration, problems that are presented may appear to be of simple solution. However, interpretation as to usage, on the one hand, may appear to be justified whereas application under dissimilar circumstances may negate their sanction.

It is mandatory that recognized and accepted guiding principles must be followed in an attempt to judiciously apply them to the varied character of individual situations. This may be a long and tedious process and necessarily the mill must grind slowly and deliberately.

Guiding principles must never be inflexible and any deviation from them must be given due consideration. If loosely applied their ultimate effectiveness and worth is destroyed.

In the AMA House of Delegates at the clinical meeting in Los Angeles in November, problems of such character were presented. To exemplify, was the question of medical ethics involved in the ownership of drugstores by physicians, drug repackaging companies owned and operated by physicians, and the dispensing of glasses by ophthalmologists. The multiplicity of the variants in these categories was so involved and complicated that these problems were returned to the Judicial Council for further study and evaluation with the request that they again be presented at the June, 1963, meeting of the House of Delegates.

Aside from the kaleidoscopic interpretations of these various endeavors it appears to your President that the core of the problem hangs in the balance of the interpretation given to definition and application of the phrase "exploitation of the patient." Any project which takes unfair advantage of the patient or contributes thereto, in any respect, or which arouses suspicion or doubt as to the integrity of the profession as a whole jeopardizes the high ideals for which we strive.

To reduce the principle of ethics to the simplest form it only signifies that one should treat others as he himself desires to be treated.

William J. Sheridan, M. D.

President

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor and Secretary, 8210 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor and Secretary
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

Addison B. Scoville, Jr., M.D. 2104 West End Ave. Nashville 5, Tennessee
Albert Weinstein, M.D. Medical Arts Building Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK

Fred B. Ballard, Jr., M.D.
Boyer M. Brady, Jr., M.D.
John H. Burkhart, M.D.
W. David Dunavent, M.D.
Robert P. McBurney, M.D.
C. Harold Steffee, M.D.
Henry B. Turner, M.D.
Bruce E. Walls, M.D.
Wendell W. Wilson, M.D.
R. H. Kampmeier, M.D.

JANUARY, 1963

EDITORIAL

FARM ACCIDENTS

Almost 250,000 farm workers were employed in Tennessee last year.[1] A large number of farm accidents occur yearly and the description of an overturned tractor crushing its driver is an all too common item in the daily press. Recognition by the medical profession of the many causes of farm accidents is essential.

Gleason and Gleason,[2] at a conference dealing with highway safety, made the following observation applicable to accidents in other areas. "The precept, 'a miss is as good as a mile,' should be kept in mind in preventive control of accidents. There may be only a hairsbreadth of space or a split second of time between a missed accident and a fatal outcome. In a slight deviation from usual behavior the narrow margin between a safe and an unsafe action can be removed."

The causal variables surrounding every accident are multitudinous and cannot be wholely anticipated. Therefore, modern man must rely on his conditioned reflexes to protect himself. Any disorder in a person that tends to disturb his protective mechanisms can contribute to accident susceptibility. Weinerman[3] sums up the accident problem: "Proneness to accident is at once an attribute of the disturbed personality, impaired physiology and unsafe conditions of environment. Successful prevention must recognize the total ecologic complex." The farm provides an especially hazardous working environment since exposure to a multitude of potent chemicals is combined with the use of dangerous machinery, both under marginal supervision.[4] Medicine must concern itself with the "impaired physiology" component of this complex and those agents, notably chemical, which are capable of causing physiologic derangement.

Aita,[5] quoting Gleason, Gosselin and Hodge, states that of the 60 basic classes of poisonous compounds apt to be found in the home or farm about two-thirds affect the central nervous system. Chemical poisonings may produce acute excitation of the central nervous system followed by depression. Such symptoms may include anxiety, jitters, emotional lability, tremors, increased psychomotor activity, disturbed behavior, exhaustion, lethargy, weakness and somnolence. Any of these can increase a person's accident liability. Exposure to commonly used insecticides containing Chlordane and DDT or to solvents, cleaners, paint removers, insecticides and other pesticides containing xylene may be responsible for signs of excitation or depression. Exposure to these chemicals does not have to be either prolonged or severe. On the contrary, mild unrecognized exposure by its insidious action may be much more dangerous.

A farmer in preparing his tractor for field work may inhale sufficient gasoline fumes to produce a "naphtha jag," the symptoms of which closely resemble those of alcoholic intoxication. He may not feel inebriated when he takes his tractor in the field. A boulder lies in his path. Ordinarily he would either stop his tractor or drive around the obstruction. In his poisoned condition he

hits the boulder, his tractor turns over and another farm casualty is reported. Rarely is mention made of intoxication due to inhalation of gasoline fumes as a contributing factor in the wreck.

Farm accidents can be reduced if workers are taught to avoid contact with various poisonous compounds found about farms. If contact does occur, farm duties should be avoided until the worker's physiologic processes return to normal. The family physician frequently has the opportunity to instruct farmers in this phase of accident prevention. He must not avoid this responsibility.

A. B. S.

References

1. Personal Communication, Dept. of Agriculture, State of Tennessee.

2. Gleason, Marion and Gleason, Peter: A Limited Questionnaire Study of Nonfatal Accident Cases, New England J. Med. 252:1029, 1955.

3. Weinerman, E. R.: Accident-proneness: Critique, Am. J. Pub. Health 39:1527, 1949.

4. Comments on Chemical Hazards on the Farm, University of Rochester, Dept. of Pharmacology Bulletin, July 1962.

5. Aita, J. A.: Neurologic and Psychiatric Symptoms of Acute Chemical Poisoning, Nebraska M. J. 42:571, 1957.

★

UNITED HEALTH FOUNDATIONS, INC.

Medical science and its application in this country was built on private philanthropy provided by personal or family wealth which had its beginnings in the days of laissez faire, when the industrialist might give little thought to his employees and when government left him relatively unhampered by taxes or statutory control. Even in those days, however, there began to develop a broader viewpoint of contributions to the advancement of medical knowledge. The American Cancer Society was founded in 1913. Later the American Heart Association (1924) and the National Foundation for Infantile Paralysis (1938) came into being. (The American Red Cross and the National Tuberculosis Association have had well over a half century's experience in relief and assistance to the ill.) By now some three dozen and more fund raising health agencies are in the field with varying interests in health education, research and service.

Out of governmental sponsorship of scientific research during World War II grew a permanent commitment to support research by tax-dollars. In the area of medicine there developed as a major effort the National Institutes of Health, whose constant expansion for a decade and more is illustrated in comparing the Extramural Research Project Grants for 1959 and 1960 alone—9,166 and 11,572 grants for $142,627,730.00 and $198,719,397.00 respectively.[1]

Some in public life have visualized that research in science might well become solely a function of government. This brings up tax supported versus private endeavors, and the necessary hedges in the use of public funds. In research, and in an effort to at least partially control waste, it must be categorical. (The new institutional grants may break down the rigidity of categorical grants. It is too early to comment on this.) Against this no mean contribution has been made in the same decade by private contributions notably through the voluntary major health agencies, both financially and effectively. Such funds, however, by the very nature of the organization and its fund raising slogans, have also needed to be earmarked for categorical research. (This is pointed up by the lobbying of officers of certain of these agencies in Congress toward increasing the budgets for the National Institute twin to the agency's interest.)[2]

Within the past five years or more a new source of private funds for research has been made available as a result of the battle between the voluntary health agencies and United Fund drives. Well over a hundred of the latter have within their budget funds earmarked for research or health education. Here were funds to some extent at "loose ends" without professional guidance for allotment to worthwhile projects, and subject to "pressures" if more than one medical school or other research institution was in the area. Until the end of 1961 the Medical Research Program of the National Fund for Medical Education offered a repository and channel of disbursement for many of these funds.

With 1962, the United Health Foundations, Inc., was set up. It is an outgrowth on a national scale of its prototype born in

1957, in Boston, as the Medical Foundation when this city went into a United Fund type of money raising campaign. This is described in a recent issue of *The New England Journal of Medicine*.[3,4] It has provided "seed money" for projects "unusual in nature and in an area of investigation for which ready financing is not available." In its several years this Boston Foundation has given 40 three-year fellowships; 9 of the fellows have remained in academic medicine or health research. Its "Board of Directors consisted of community leaders in industry, labor and the medical profession, with the latter in the minority." Its $450,000 annual allotment has been assigned by two committees, a Research Allocations Committee and a Health Education Committee.

The United Health Foundation has been reinforced also by the Medical Research Foundation of North Carolina through which United Funds of the state have been allocating upwards of $100,000 annually to its three medical schools—Bowman-Gray, Duke, and University of North Carolina. The Health Research and Services Foundation in Pittsburgh and other community Health Foundations have similar objectives. The national organization as its Boston prototype has a Board of Directors, representatives from the country at large. It has elected its officers and has or will appoint the two important working committees, the Scientific Advisory Committee and the Health Education Advisory Committee to give country-wide representation in the medical and health fields.

The services the United Health Foundations offer are: (1) through its advisory committees it will certify and approve the research programs supported by United Fund drives or other organizations either within the community (as in Boston) or within the area (as in North Carolina) if the funds are so earmarked; (2) it will pool funds, not earmarked for use within a geographic area, for allotment on a national scale; (3) it will allot research grants, if requested by the lesser health agencies which may lack the organization and direction as provided in the major agencies, especially if designated for local use; and (4) it will stand ready to advise how best to utilize the community's money set aside for health education of its people. Since the activities of the United Health Foundations are financed by a 3% of the total research funds of its voluntary members, it will *not conduct a national fund-raising or promotion campaign.*

Here then is a provocative experiment in the assignment of private funds for research by providing unbiased scientific advice from without a community, thereby assuring the least possible waste upon research projects of dubious merit. Of especial importance is the feasibility of making small grants of a noncategorical nature. (Too many of the small grants went "out the window" with "big business" in grants.)

We will watch this experiment with interest not only because of the newness of its approach, but also because one of TSMA's members of many years, Dr. John B. Youmans, former Dean and Professor of Medicine, Emeritus, Vanderbilt University School of Medicine, is the President of this new Organization.

R. H. K.

References

1. The Medical Almanac, 1961-62. Philadelphia. W. B. Saunders Co., 1961.

2. Bornet, Vaughn Davis: Welfare in America. Norman, Oklahoma. University of Oklahoma Press, 1960.

3. Denmone, Jr., Harold W.: The Medical Foundation Incorporated: A New Approach to Voluntary Health Programming, New England J. Med. 266:919, 1962.

4. Editorial, Ibid. 266:950, 1962.

Special Item

Actions of House of Delegates—AMA

November 25-28, 1962
Los Angeles, California

Health care for the aged, medical ethics, graduate medical education, expansion of the AMA Board of Trustees and a study of the sections and scientific program of the AMA were among the major subjects acted upon by the House of Delegates at the American Medical Association's Sixteenth Clinical Meeting held November 25-28 in Los Angeles.

In commenting on the attitude of AMA toward social security health care for the aged, the AMA President, Dr. George M. Fister said, "Medicine will not compromise

on the fundamental principles in which we believe and for which we have fought for in the past with courage and good judgement. We will not jeopardize our position either by indicating a willingness to consider a compromise which would damage our basic principles, or by hasty action which might be misinterpreted."

The House reaffirmed, without compromise or change, the Association's present policy of opposition to the King-Anderson type of legislation and support for the Kerr-Mills program. In so doing, it also approved in principle the following suggested amendments to the Kerr-Mills Law:

1. Remove the requirement that both Old Age Assistance (OAA) and Medical Assistance for the Aged (MAA) programs be administered by the same agency;

2. Provide flexibility in the administration of the income limitations proposed under state law so that a person who experiences a major illness may qualify for benefits if the expense of that illness, in effect, reduces his money income below the maximum provided;

3. Include a provision in the law requiring state administering agencies to seek expert advice from physicians or medical societies through medical advisory committees; and

4. Provide for "free choice" of hospital and doctor under state programs.

The House also endorsed in principle four proposed amendments to the Internal Revenue Code, designed to assist in financing the medical and hospital expenses of the aged.

In considering seven so-called "pledge" resolutions, involving professional freedom, the House adopted a substitute resolution urging that all physicians be encouraged to support the position taken by the AMA House of Delegates in June, 1961. That policy statement said: "The House of Delegates invites attention to the fact that the medical profession is the only group which can render medical care under any system and that the medical profession is best qualified to determine how the best medical care can be delivered. The House of Delegates believes that the medical profession will see to it that every person receives the best available medical care regardless of his ability to pay and it further believes that the profession will render that care according to the system it believes is in the public interest and that it will not be a willing party to implementing any system which is detrimental to the public welfare."

Medical Ethics

The Judicial Council submitted a report containing opinions on medical ethics involving physician ownership of drugstores, repackaging houses and drug companies, dispensing glasses and advertising practices of medical laboratories. None of these measures were acted upon at this meeting. Those opinions were returned to the Judicial Council for further study. The House did approve a portion of the report relating to advertising practices of medical laboratories in agreeing that the propriety of such practices should be determined at the local level.

Interns and Residents

A special report on the compensation of interns and residents, which was published in the October 27 issue of JAMA, was presented to the House by the Council on Medical Education and Hospitals and the Council on Medical Service. The report was for information only and will receive further study. The House approved a report from the Council on Medical Education and Hospitals recommending numerous changes in the Essentials of an Approved Internship.

Board of Trustees

The House, by a vote of 130 to 48, adopted changes in the Constitution and By-laws which would have implemented the June, 1962, recommendations of the Committee on the Board of Trustees, including expansion of the Board from 11 to 15 members. Due to a parliamentary procedure, the final vote was not made on this issue and the House adopted a motion to vote on the proposed constitutional amendments, in accord with the changes made in the By-laws, at the opening session of the June, 1963, meeting.

Sections and Scientific Program

A report by a committee to study the scientific sections, recommending major changes in the organizational structure and scientific program of the Association was

delayed and the speaker instructed that an *ad hoc* committee be appointed and report next June.

Other Actions

In other actions, the House instructed the AMA Board of Trustees to use every influence at their command to have the Hill-Burton Law amended in such a manner as to eliminate all categorical grants, eliminate the term "diagnostic and treatment centers" from any listings in the act and prevent federal funds being awarded under existing law as a grant to closed panel medical corporations to build diagnostic and treatment centers.

Urged state and county medical societies to continue promoting the aggressive, consistent development of Blue Shield senior citizen programs . . . Encouraged medical societies and physicians to provide cooperation in the formulation and operation of regional hospital planning bodies . . . Recommended that the Board report and resolutions dealing with the "Liberty Amendment" be re-referred to the Council on Legislative Activities for further study.

Authorized the Board of Trustees to investigate establishing a physician's pension plan . . . Directed the Board of Trustees to study the feasibility of regional clinical sessions and commended the Council on National Security and its Committee on Disaster Medical Care for initiating a visitation program with committees on emergency medical service of state medical societies.

While there were other pieces of business of importance, the above are the principal actions discussed in the House of Delegates meeting last December.

J. E. Ballentine

★

Abstract of Proceedings of the Special Session of TSMA House of Delegates

December 9, 1962—Hermitage Hotel
Nashville, Tennessee

A special meeting of the TSMA House of Delegates was called and held in Nashville on Sunday, December 9th, at the Hermitage Hotel. The special session was called by the President, Dr. Wm. J. Sheridan.

The Speaker of the House, Dr. J. Malcolm Aste, called the meeting to order at 10:00 A.M. The notice of the call was read to the assembled delegates.

The call set forth the purpose of the special session, which was:

(1) To discuss a proposed act to amend Section 50-703 of the Tennessee Code, a bill which had been previously endorsed by the Tennessee Public Health Association and submitted to TSMA for its approval. This proposed bill would change the provisions to enable a private physician to examine patients and issue a work permit to a minor. Such examinations now being performed by a Public Health physician or a School Board physician.

(2) A bill to amend Section 63-605 of the Tennessee Code for the purpose of enacting a Good Samaritan Law. Such a law would provide exemption from liability to physicians attending patients in certain cases of emergencies.

(3) A proposed act to amend Section 63-211 of the Tennessee Code to allow licensure to non-citizen physicians.

This bill is aimed at removing the discrimination against non-citizen physicians in allowing a mechanism whereby qualified doctors who are generally desirous of obtaining citizenship in this country will be allowed to practice medicine in the state without having to spend 5½ years without a license and before obtaining full citizenship papers. Such a measure as presented in the proposed bill will accomplish a change in the Basic Science Law.

All of the proposed bills had been previously mailed with the notice of the call to certified delegates to the House of Delegates of TSMA.

Prior to the presentation and discussion of these bills, Dr. William J. Sheridan, President, gave additional information on the necessity for calling the special meeting of the House.

I. Dr. R. H. Hutcheson, presented and discussed the amendment proposed by the Tennessee Public Health Association for the examination of minors for a work permit. The matter was discussed by other members of the House, after which, a motion was made by Dr. Garrott for adoption of the resolution. It was severally seconded, put to a vote and **the proposed bill was adopted.** (Copy of the bill is as follows.)

An Act to Amend Section 50-703 of the Tennessee Code Annotated

SECTION 1. Be It Enacted by the General Assembly of the State of Tennessee, That Section 50-703 of the Tennessee Code Annotated by and the same is hereby amended by striking the first sentence in sub-paragraph (b) and inserting in lieu thereof a sentence to read as follows:

"A statement from a public health, public school physician or a private physician holding an unlimited license to practice medicine in Tennessee showing that he has personally examined the minor and certifying that medical examination of the minor shows that he is physically fit to be employed in such occupations or to be employed in such occupations under limitations which are specific in the statement."

SECTION II. Be It Further Enacted That Section 50-703 is further amended by striking the last sentence in the last paragraph of sub-section (b) and inserting in lieu thereof a new sentence to read as follows: "Such examinations shall be made without charge to the minor if done by the public health or public school physician."

SECTION III. Be It Further Enacted That this act take effect from and after its passage, the public welfare requiring it.

II. Dr. Tom Nesbitt, Chairman of TSMA's Legislative Committee, presented the proposed bill for a Good Samaritan Law. He moved its adoption. The motion was seconded. Following discussion, **this proposed legislation was approved by the House of Delegates.** The bill adopted is as follows:

An Act to Amend Section 63-605 of the Tennessee Code Annotated

SECTION 1. Be It Enacted by the General Assembly of the State of Tennessee, That Section 63-605 of the Tennessee Code Annotated be and is hereby amended by adding to said Section the following sentence, to wit:

"No person licensed under this chapter, who in good faith renders emergency care at the scene of an accident or other such emergency, shall be liable for any civil damages as the result of any acts or omissions by such person in rendering such emergency care."

SECTION 2. Be It Further Enacted, That this Act take effect from and after its passage, the public welfare requiring it.

III. Dr. Nesbitt presented the proposal for amending the Basic Science Law to enable foreign physicians to obtain a license to practice medicine while awaiting final certification for citizenship. This measure provided heated discussion among members of the House. After debate, a motion to adopt the bill was made by Dr. Nesbitt and duly seconded, and upon a standing vote, the House of Delegates **adopted the proposed bill by a vote of 31 to 29.** The bill adopted is as follows:

An Act to Amend Section 63-211 of the Tennessee Code Annotated

SECTION 1. Be It Enacted by the General Assembly of the State of Tennessee, That Section 63-211 of the Tennessee Code Annotated be and is hereby amended by striking said Code Section in its entirety and substituting in lieu thereof the following:

"63-211. **Qualifications of applicants.—Duration of certificate.**—No certificate shall be issued by the board unless the person applying for a certificate submits evidence satisfactory to the board that (1) he is not less than twenty-one (21) years of age, and if not a citizen of the United States, is eligible to file and has filed a signed declaration of intention to become a citizen of the United States, but any certificate issued to such alien shall be valid and effective only for a period of five and one-half (5½) years from the date such certificate was issued and shall automatically be revoked should such alien fail to apply for naturalization within such five and one-half year period or should his petition be withdrawn or not be granted for any reason whatsoever; (2) he is a person of good moral character; (3) he was graduated by an accredited high school, or accredited school of similar grade; and (4) he has comprehensive knowledge of the basic sciences as shown by passing the examination given by the board as by this chapter required. Provided, that no action of the board shall preclude any person under twenty-one (21) years of age who meets all other requirements, from taking the examination before reaching his or her twenty-first birthday. All persons taking and successfully passing the required examinations and otherwise meeting the board's requirements shall be issued a provisional certificate which shall be valid at the time the individual reaches twenty-one (21) years of age, said date to be shown upon the certificate as issued. Every certificate of any kind issued by this board shall be valid and effective for a period of ten (10) years from the date of its issuance, except as provided in (1) above."

SECTION 2. Be It Further Enacted, That this Act take effect from and after its passage, the public welfare requiring it.

The meeting of the House of Delegates adjourned at 11:00 A.M.

J. E. Ballentine Executive Director

Circle
These Dates
APRIL
7-10

Tennessee State Medical Association

1963 ANNUAL MEETING HIGHLIGHTS

KNOXVILLE, TENNESSEE

MAKE A DATE—APRIL 7-10, 1963—for the TENNESSEE STATE MEDICAL ASSOCIATION'S big meeting of the year. Three days of Scientific Meetings—Lectures by outstanding speakers, Panels, Conferences. This is a meeting in which every Tennessee Physician will find features to his liking.

President's Banquet

Monday, April 8 • C'est Bon Club

House of Delegates

Sunday, April 7 • Tuesday, April 9

Registration Daily

8:00 a.m. to 5:00 p.m. . . . No Registration Fee



Headquarters: Andrew Johnson Hotel

Here are Features:

- Three Days of General Scientific Meetings
- Meetings of Seventeen Specialty Societies
- Fun and Entertainment
- Technical and Educational Exhibits
- Six Guest Speakers
- The President's Banquet at the C'est Bon Club
- Meeting of the Woman's Auxiliary—Arts and Crafts Exhibit
- Banquets and Business Sessions
- Dr. Durwood Hall, Missouri, member of Congress, will be the speaker at the President's banquet.
- Credits for Members of the American Academy of General Practice

Write to Reservations Manager, Convention and Visitors Bureau, Knoxville Chamber of Commerce, 920 So. Gay St., Knoxville, Tenn.

Registration Desk Will Be Located in the Lobby of the Andrew Johnson Hotel

DEATHS

Dr. Jack R. Duley, 37, Columbia, died on November 22nd from injuries received in a traffic accident in Douglas, Georgia.

Dr. William Spence Jones, 45, Knoxville, died November 30th in the Veterans Hospital at Johnson City.

Dr. Lucien Joseph Caldwell, 85, Nashville, died December 14th at his home.

Dr. John Howard King, 79, Nashville, died November 29th at St. Thomas Hospital.

Dr. Oscar M. Laten, 77, Memphis, died November 28th in a Memphis Nursing Home.

Dr. Lester I. Goldsmith, 51, Memphis, died November 27th at his home.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Greene County Medical Society

The Society met on December 4th at the Elks Club in Greeneville. Dr. Ben J. Keebler, President, presided.

Officers elected for 1963 are Dr. William L. McGuffin, elected President; Dr. Haskell B. McCollum, Vice President; and Dr. James R. McKinney, secretary-treasurer. There was no scientific program; there was discussion on the number of detected cases of tuberculosis in Greene County in 1962 as compared to 1961.

Knoxville Academy of Medicine

The monthly meeting of the Knoxville Academy of Medicine was held December 11th in the Academy building. It was primarily a business meeting. Dr. Dewey Peters, President, gave his address. The committee chairmen of the Society made their annual reports. Dr. John H. Burkhart was named president-elect. Dr. Richard Sexton assumes the presidency in 1963. Dr. R. J. Leffler was re-elected secretary-treasurer.

Nashville Academy of Medicine Davidson County Medical Society

The annual dinner meeting for installation of officers occurred on January 8th at the Hermitage Hotel. Dr. Walter L. Diveley succeeded Dr. Joseph Ivie as President, and Dr. Addison B. Scoville was installed as President-Elect. Dr. Tom E. Nesbitt was installed as secretary-treasurer. Drs. A. B. Lipscomb and Harrison Shull took office as members of the Board for three-year terms.

Chattanooga-Hamilton County Medical Society

The Society held its annual business meeting and election of officers at the Interstate Building on December 4th. Dr. Edward T. Newell, Jr. was named President-Elect, and Dr. M. F. Langston assumed the duties of President for 1963. The newly elected Secretary-Treasurer is Dr. Robert Clark.

Memphis-Shelby County Medical Society

The Society met on December 4th at the Memphis Country Club. Dr. Gilbert Levy assumed the office of President for 1963, and Dr. William T. Satterfield was named President-Elect. Dr. Charles B. Olim was elected Treasurer, Dr. R. A. Calandruccio, Secretary, and Dr. Ben L. Pentecost, Vice President.

Death of V. O. Foster

The death on September 25 of Mr. V. O. Foster reminds us of his contributions to the Tennessee State Medical Association. After some time as a high school teacher, followed by some years in municipal administration, he became the Assistant Secretary of the Tennessee State Medical Association in 1946. He was made Executive Secretary of the Association in 1950 and served in that capacity until the end of May, 1954, when he became the Executive Secretary and Treasurer of the Southern Medical Association. As the first lay official of the Tennessee State Medical Association he played a large part in laying the foundations for the non-professional activities of the Association as they stand today. He had an active part in the formation and establishment of "The Tennessee Plan" of prepaid insurance, and spelled out the plans for the Public Service Program of the Association. He remained with the Southern Medical Association until 1959, when his resignation was accepted because of ill health.

NATIONAL NEWS

The Month in Washington

(From the Washington Office, AMA)

Health, Education and Welfare Secretary Anthony J. Celebrezze expressed the be-

lief that state and local governments have the primary responsibility for welfare programs and other public services.

He told a National Press Club luncheon: "The federal government's responsibility should be limited to those matters which are of primary national interest and cannot be effectively carried on through individual or local community effort."

He also said that his basic welfare program policy would be to "help people help themselves."

But Celebrezze does not follow this philosophy of government to the point of weakening his support of the Kennedy Administration's social security hospitalization legislation in the new Congress convening January 9. But Celebrezze conceded it would be difficult to secure House approval.

The Administration gave no indication in pre-session talk whether the big push for the legislation would be made in this year or in 1964.

The House of Delegates of the American Medical Association, at its recent 16th Clinical Meeting in Los Angeles, reaffirmed its opposition to the Social Security approach in providing health care for the aged. The AMA also reaffirmed its support of the Kerr-Mills program.

Dr. George M. Fister, AMA president, said the AMA "will not compromise on the fundamental principles" in the controversy. Noting that the medical profession again faces a hard fight on the issue in Congress, Dr. Fister expressed confidence that "we can again win."

A spokesman for the drug industry warned at a Washington, D. C., meeting of government and industry officials and consumers that enactment of the Administration medical care plan would open the way for the federal government "to extend its controls in all health areas, including drugs, ostensibly to assist patients economically to obtain these services." The spokesman, Francis C. Brown, president of Schering Corp., added: "Those who say it can't happen here may be deluding themselves. It can and it will if we permit it."

The new Congress has only four physician members as compared to seven in the 1961-62 session.

Sen. Ernest Gruening (D., Alaska) and Reps. Durward Hall (R., Mo.) and Thomas Morgan (D., Pa.) were reelected. Dr. James D. Weaver (R., Pa.) captured a House seat in his first political race.

Reps. Walter Judd (R., Minn.) and Ivor Fenton (R., Pa.) were defeated in contests where redistricting was a major factor.

Rep. Dale Alford (D., Ark.) gave up his House seat and ran unsuccessfully for the governorship of Arkansas, Rep. Edwin Durno (R., Ore.) lost in a bid to switch from the House to the Senate.

The overall election results added four Democrats in the Senate, but appointment of a Republican to succeed a deceased Democrat cut the net gain to three. The Republicans increased their House strength by two members.

The Senate lineup now is 67 Democrats to 33 Republicans. The new House has 259 Democrats and 176 Republicans.

★

The American Hospital Association and the Defense Department agreed on a program to use hospitals as public fallout shelters in event of nuclear attack. In a joint statement, the AHA and the Defense Department said that "in these times every hospital has the responsibility to take practical and sensible measures to minimize loss of life resulting from radioactive fallout" should there be a nuclear attack.

It was estimated about 6,200 U. S. Hospitals presently could provide fallout protection for more than three million persons.

The program calls for the Defense Department providing the co-operating hospitals with emergency supplies of medical material, food and other emergency items to be stockpiled in basements and other places judged "safe" from fallout.

If Congress approves the Administration's request for a national shelter program, federal funds will be available to hospitals for additional construction that would be suitable for operating rooms, storage space, automobile parking and other similar purposes when not needed for fallout shelters.

★

American consumers spent a new high of $21.1 billion for health care in 1961, according to the Social Security Administration.

The Federal Agency reported that the to-

tal private outlay for health care, which included $14.4 billion in direct out-of-pocket expenditures and $6.7 billion paid for health insurance, exceeded by $1.3 billion the total spent in 1960.

The 1961 consumer expenditure for health care amounted to $116.60 for each American. Direct expenditures per capita were $79.76 and payments for health insurance amounted to $36.84 per capita.

These sums applied only to private expenditures for health care and did not include government outlays or health care provided through private organizations to the needy.

A breakdown by category of expenditures showed how the consumer's health care dollar in 1961 was divided:—hospital care, 27.6 cents; physicians' services, 27.6 cents; drugs, 19 cents; dental care, 9.8 cents; eyeglasses and appliances, 6 cents; nursing and other professional care, 4 cents; nursing-home care, 1.4 cents. The remaining 4.6 cents represented the net cost of health insurance.

Of the total $6.7 billion expenditure for health insurance premiums, 45.4 percent was paid to Blue Cross-Blue Shield plans, 38.1 percent to insurance companies for group coverage, 9.4 percent to insurance companies for individual policies, and 7.1 percent to independent health insurance plans.

It was estimated that insurance benefits paid 28.3 percent of the consumer's total 1961 health care bill, exclusive of the cost of insurance. Insurance met 66 percent of all charges for hospital care, 30 percent of all charges for physicians' services and 1.5 percent of the cost of all other items, including dental care, nursing service, drugs and nursing-home care.

MEDICAL NEWS IN TENNESSEE

Drs. Hutcheson and Baker to Continue Post

Governor-elect Frank G. Clement has announced that he will reappoint Dr. R. H. Hutcheson to a new four-year term as State Health Commissioner. Likewise, the Governor-elect has stated that Dr. Joseph J. Baker will be reappointed for another term as State Mental Health Commissioner. (Dr. Hutcheson has served in his post for the past nineteen years.)

Middle Tennessee Medical Association

At the November meeting Dr. Carson E. Taylor, Lawrenceburg, assumed the office of President. Dr. Greer Ricketson, Nashville, was named President-Elect, and Dr. Arnold Meirowsky, Nashville, was re-elected secretary-treasurer. Approximately 100 physicians attended the meeting. The next meeting will be held in Franklin, Thursday, May 16. Dr. Joseph Willoughby was named chairman of the arrangements committee.

Senior Citizen Enrollment

A special statewide open enrollment period for senior citizens, 65 years of age and over, was announced recently by the Tennessee Hospital Service Association. All persons who will be 65 by July 15, 1963, were eligible for membership in the plan. Enrollment began November 18th and extended through December 1. This is a plan approved by the Tennessee State Medical Association for persons 65 years of age and above.

Hubbard Hospital

A five-story addition is scheduled for completion in August, 1963. The addition, costing approximately $1,602,611 including equipment, will increase Meharry's teaching hospital space by some 77,000 sq. ft., giving the hospital a total of 260 beds, with 40 in reserve.

Bradley Memorial Hospital

The Hospital became a 152-bed institution with some of the finest equipment in the southeast when a new wing was opened in November. In addition to facilities for 50 patients, the new wing includes an x-ray room with modern equipment, physical therapy room, emergency room and surgical and obstetrical floor with additional labor rooms.

Vanderbilt University School of Medicine

The latest advances in the diagnosis and treatment of heart diseases were discussed at the annual symposium conducted by the Middle Tennessee Heart Association in co-

operation with the Tennessee Department of Public Health and Vanderbilt University School of Medicine. The sessions were held at Vanderbilt University Hospital on December 6 and 7. Six authorities were guest speakers. They included: Dr. J. Scott Butterworth, New York City; Dr. Albert A. Brust, Dayton, Ohio; Dr. Edgar Hull, New Orleans; Dr. Dwight C. McGoon, Rochester, Minnesota; Dr. Eugene D. Klatte and Dr. Lloyd H. Ramsey of Nashville.

★

General practitioners from Middle Tennessee, on December 13th, attended a postgraduate program dealing with the latest developments in the field of gynecology and obstetrics. The program was sponsored by the Department of Obstetrics and Gynecology; Dr. Robert W. Noyes, chairman of the Department, was in charge of the program.

University of Tennessee College of Medicine

Twenty-six physicians have been promoted, it was announced by Dr. M. K. Callison, Dean. Staff members and their new ranks are:

Dr. Wendell L. Whittemore, instructor, orthopedic surgery
Dr. Fred P. Sage, instructor, orthopedic surgery
Dr. A. Hoyt Crenshaw, assistant professor, orthopedic surgery
Dr. Melvin Wayne DeWeese, instructor, ophthalmology
Dr. James C. H. Simmons, instructor, neurosurgery
Dr. Sam E. Hunter, instructor, neurosurgery
Dr. William S. Ogle, instructor, neurosurgery
Dr. A. R. Tyrer, assistant professor, neurosurgery
Dr. E. E. Bramlitt, instructor, surgery
Dr. Alphonse Meyer, Jr., assistant professor, surgery
Dr. McCarthy DeMere, assistant professor, surgery
Dr. Jack Greenfield, assistant professor, surgery
Dr. J. T. Duncan, assistant professor, surgery
Dr. Benjamin Greenburg, associate professor, radiology
Dr. Lloyd Crawford, assistant professor, pediatrics
Dr. David James, assistant professor, pediatrics
Dr. John O. Adams, associate professor, obstetrics and gynecology
Dr. Sidney D. Jones, instructor, obstetrics and gynecology
Dr. R. P. McNeils, instructor, medicine
Dr. O. S. Matthews, assistant professor, medicine
Dr. Paul T. Drenning, assistant professor, medicine
Dr. Arthur L. Bellott, Jr., assistant professor, medicine
Dr. Alva B. Weir, associate professor, medicine
Dr. Lester Van Middlesworth, associate professor, medicine
Dr. Burt Friedman, associate professor, medicine.

★

Nineteen physicians of Memphis have been appointed to the staff. They are: Drs. Iris A. Pearce and Norman Taube, assistants in the Department of Medicine; Dr. Ralph Monger, assistant in the Division of Urology; Drs. Harry W. Wilson, Robert R. Hughes and Walter A. Ruch, Jr., assistants in the Department of Obstetrics and Gynecology; Drs. Walter David and M. Coyle Shea, assistants in the Division of Otolaryngology; Drs. Leon C. Hay, George B. Higley, Jr., Royce Hobby and Paul H. Williams, assistants in the Division of Orthopedic Surgery; Dr. Hugh Francis, Jr., E. Sidney Birdsong, Jr. and William R. Pridgen, assistants in the Department of Surgery; Dr. Darwood B. Hance, assistant in the Department of Radiology, and Drs. Edward Mogan and William C. Threlkeld, assistants, and Ethel A. Harrell, instructor in the Department of Pediatrics.

★

The College graduated more physicians during 1961-62 than any of the other 82 medical schools in the nation; 177 physicians were graduated during the period. A total of 751 students were enrolled.

★

The Institute of Pathology and College of Dentistry have received a $172,000 grant from the Division of Chronic Diseases of the U.S.P.H.S. to support a program for the early detection of oral cancer. The award was made to Drs. Sidney A. Coleman, Ordie H. King, Jr., of the Department of Pathology. Dr. Roy Smith, the Department of Oral Medicine is the clinical co-ordinator for the project at the College of Dentistry.

★

Dr. Jose Gros, former assistant professor of otolaryngology at the University of Havana, Cuba, has joined the staff of the department of otolaryngology at the University of Tennessee College of Medicine.

A pilot project, which may revolutionize the present method of recording information on hospital patients, has been undertaken by the City of Memphis Hospitals and the College of Medicine in cooperation with International Business Machines Corporation. Dr. I. Frank Tullis, Department of Medicine, and Dr. Glenn Clark, Chief of Staff of the City of Memphis Hospitals, have aided in developing the program to study ways of increasing the efficiency and effectiveness in processing and recording all activities involved in hospital patient care by the utilization of an electronic data processing system. It was said that, "We hope to discover a way of processing and controlling the activities which will simplify this complex mass of data for physicians, nurses and technicians."

PERSONAL NEWS

Dr. Fred E. Hufstedler, Knoxville, has been named chief of staff of the Baptist Hospital. Other appointments announced were: **Dr. John Lesher,** chief of general practice; **Dr. Jacob Bradsher,** chief of surgery; **Dr. Robert L. Akin,** chief of medicine; **Dr. Martin Davis,** chief of obstetrics and gynecology. All are Knoxville physicians.

Dr. Hoyt Dees, Erwin, has been named Unicoi County's 1962 Citizen of the Year.

Dr. Sarah Sell, Nashville, recently addressed the Downtown Civitan Club.

Dr. Felix G. Line, Knoxville, has been named chief of staff at University Hospital. He succeeds **Dr. J. T. Bradsher, Jr.**

Dr. E. Charles Sienknecht, Knoxville, has been re-elected chief of staff of Presbyterian Hospital. **Dr. Frank J. Slemons** was re-elected vice chief and **Dr. Roy Hall** renamed secretary.

Dr. Hugh Smith, Memphis, recently addressed 400 delegates to the International Pacific Air Forces Medical Conference in Tokyo. He spoke on "The Fifth Horseman: Accidents and Accidental Deaths by Surface Motor Vehicles."

Dr. Fred Ballard, Jr., Chattanooga, has been certified as a diplomate of the American Board of Internal Medicine.

Dr. Paul Spray, Oak Ridge, was a recent guest speaker before the Rotary Club.

Dr. R. H. Kampmeier, Nashville, has been named first vice president of Southern Medical Association.

Dr. James E. Hampton, formerly of Murfreesboro, has moved his office for the practice of medicine to Clarksville.

Dr. Fred M. Valentine, Jr., Newport, recently spoke before the Kiwanis Club on the subject, "Medical Care for the Aged."

Dr. Kenneth G. Ross, Paris, has been elected president of the Henry County Medical Society.

Dr. Chester G. Allen has been elected to succeed **Dr. John Hamsher** as president of the Memphis Branch of the Southeastern Urological Association. Other Memphis physicians elected were: **Dr. Holt B. Maddux,** president-elect, and **Dr. Albert Biggs,** secretary-treasurer.

Dr. Maurice S. Rawlings, Chattanooga, has received his certification announced by the American Board of Cardiovascular Diseases.

Dr. Searle McMurry, Knoxville, has been made a diplomate of the American Board of Pathology.

Officers of the Department of Surgery at Baptist Hospital, Memphis, have been elected. They are: **Dr. William T. Tyson, Jr.,** chairman; **Dr. W. Edward French,** vice chairman; and **Dr. Joseph H. Brock,** secretary.

Dr. James A. Kirtley, Nashville, has been elected president of the Southern Surgical Association at its recent meeting in Boca Raton, Fla.

Dr. M. M. Young, health director for four East Tennessee counties, became director of the Chattanooga-Hamilton County Health Department on January 1st.

Dr. Frank S. Allen, Memphis, has been elected president of the medical staff at St. Joseph Hospital. Other officers elected were: **Dr. Wilford H. Gragg, Jr.,** president-elect; and **Dr. Breen Bland,** secretary.

Drs. Robert L. Summitt and **William C. Threlkeld,** Memphis, have been elected Fellows of the American Academy of Pediatrics.

Dr. Charles B. Olim, Memphis, has been chosen president-elect of the Baptist Memorial Hospital. His term will begin in 1964. **Dr. Wm. P. Maury, Jr.** will serve as president in 1963. Other officers chosen by the staff include **Dr. William T. Tyson, Jr.,** secretary; **Dr. Edwin W. Cocke, Jr.,** and **Dr. A. Lynn Herring,** directors for two-year terms.

Dr. W. P. Stone, Springfield, is the new president of the Robertson County Medical Society.

Three Nashville physicians were awarded second place for their technical exhibit at Southern Medical Association's 56th Annual Meeting. They were: **Drs. John L. Sawyers, J. Lynwood Herrington, Jr.** and **William H. Edwards.** The subject of the exhibit was "A Physiologic Operation of Esophageal Hiatal Hernia."

Dr. James N. Etteldorf, Memphis, has been re-elected president and chief of the medical staff of Le Bonheur Childrens' Hospital. Others elected were: **Dr. E. D. Bell, Jr.,** vice president; **Dr. J. A. Rothschild,** secretary; **Dr. R. A. Calandruccio,** chief of surgery; and **Dr. Sheldon Korones,** chief of medicine.

Dr. Bernard M. Zussman, Memphis, has moved his office to 40 N. Pauline, where he will continue his practice of Allergy.

Dr. E. Calvin Moore, Nashville, was elected to membership in the Southern Psychiatric Association at its annual meeting in Galveston, October 8-9.

Dr. Walton W. Harrison, Jackson, recently addressed the Exchange Club.

Dr. David S. Carroll, Memphis, has been named chairman of the board of chancellors of the American College of Radiology.

A team of east Tennessee doctors will go to Algeria in March to offer medical assistance to this new country, under the auspices of MEDICO. **Dr. Paul Spray,** Oak Ridge, is the leader. Other physicians and surgeons making up the team are **Dr. Robert Bigelow, Dr. Avery King,** and **Dr. Bill Blevins** of Oak Ridge, **Dr. Robert Metcalf** of Crossville, and **Doctors H. Dewey Peters, Felix Line** and **Walter Benedict** of Knoxville. The east Tennessee team will relieve one from Albany, New York, and which has also given a month of time.

ANNOUNCEMENTS

Calendar of Meetings 1963

State

January 31-February 1—Postgraduate Course, "Pediatric-Obstetrical Problems," Vanderbilt University, School of Medicine, Nashville.

February 12-16—Mid-South Medical Assembly, Memphis.

February 13-15—Postgraduate Course, "Emergency Surgery in the Care of the Injured Patient," University of Tennessee College of Medicine, Memphis.

February 21—Postgraduate Day, "Psychologic Problems in Childhood," Vanderbilt University School of Medicine, Nashville.

February 28—Postgraduate Day, "Fractures in the Senior Citizen," Vanderbilt University School of Medicine, Nashville.

March 7-8—Postgraduate Course, "Urinary Tract Diseases—Diagnosis and Treatment," University of Tennessee College of Medicine, Memphis.

March 21—Postgraduate Day, "Cerebral Palsy—Current Concepts in Therapy," Vanderbilt University School of Medicine, Nashville.

April 7-10—Tennessee State Medical Association Annual Meeting, Knoxville.

Regional

February 12-14—Medical College of Georgia Postgraduate Course, "Growth and Development—Management of Common Behavior Disturbances," Augusta.

February 16-17—Postgraduate Course, "Psychiatric Aspects of Certain Physical Disorders," University of Indiana Medical Center, Indianapolis, Ind.

March 18-21—Southeastern Surgical Congress, Miami Beach, Florida.

National

January 18—American Society of Facial Plastic Surgery, New York, N. Y.

February 6-9—American College of Radiology, Chicago, Illinois.

February 14-16—American Society of Clinical Pathologists, New Orleans, La.

February 28-March 3—College of American Pathologists, Houston, Texas.

March 29-April 5—American Academy of General Practice, Chicago, Illinois.

Postgraduate Course Pediatric-Obstetrical Problems Vanderbilt University School of Medicine

Obstetricians share with pediatricians the responsibility for the most critical period in human development—the perinatal period. The Departments of Obstetrics and Gynecology and of Pediatrics will discuss the relationship at a Postgraduate Course to be held January 31 and February 1, 1963, at Vanderbilt University Hospital.

Mid-South Postgraduate Medical Assembly

The 74th Annual Meeting of the Mid-south Postgraduate Medical Assembly will be held in the Peabody Hotel in Memphis, February 12-15. The meeting will include nineteen outstanding guest speakers, clinical pathological conferences, technical exhibits, three round table luncheons, as well as planned entertainment and a handicap golf tournament. For details contact Mr. Les Adams, Executive Secretary, 774 Adams Avenue, Memphis.

University of Tennessee College of Medicine Postgraduate Program

The University of Tennessee College of Medicine, Division of Orthopaedic Surgery announces a postgraduate course in Surgery of the Hand, March 21-23, 1963. Guest lecturers: Don Eyler, M.D.; Earl Peacock, M.D.; Daniel C. Riordan, M.D.; Lee Milford, M.D., Program Chairman. For further information, write: Postgraduate Department, University of Tennessee, 62 South Dunlap, Memphis.

New Orleans Medical Assembly

The 26th Annual Meeting of the New Orleans Graduate Medical Assembly will be held March 4-7, with headquarters in the Roosevelt Hotel. Nineteen guest speakers will appear on the program which will include fifty-five discussions of topics of current interest, in addition to clinical pathological conferences, symposia, motion pictures, round table luncheons and technical exhibits. For details write the Assembly Office. Room 105, 1430 Tulane Avenue, New Orleans 12

PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville 5, Tennessee.

Locations Wanted

A 32 year old general surgeon with four years residency would like clinical, associate or solo practice in east or middle Tennessee. Married; Protestant; graduate Emory University. Available immediately. LW-437

◆

A Board eligible general surgeon with four years residency and graduate of Wisconsin University, would like clinical, assistant, associate or industrial practice in East Tennessee city of 20,000 plus, upon completion of his military service in January 1963. Age 32; married; Lutheran. LW-454

◆

A 30 year old Pediatrician, graduate of the University of Tennessee, with three years residency, Board certified and now on active duty with the Navy, would like clinical associate or group practice in any location in Tennessee. Married; Presbyterian; available August 1963. LW-459

◆

A 29 year old Ob-Gyn, graduate of the University of Tennessee, completing third year of residency, would like clinical or associate practice in town of 25,000 plus (prefers West Tennessee but will consider other sections). Married; Methodist; available July 1963. LW-460

◆

A 39 year old surgeon, graduate of Baylor College of Medicine, Board certified, would like institutional, industrial, or associate practice in large city in Middle or West Tennessee. Married; Catholic; available immediately. LW-463

◆

A 30 year old anesthesiologist, graduate of the University of Cincinnati College of Medicine, with two years residency, would like associate practice in large city in Tennessee. Married; Episcopalian; available August 1963. LW-464

◆

A general practitioner, with an interest in internal medicine, would like clinical or associate practice in East Tennessee city of 30,000 or less. Now in government practice, but wishes private practice. Age 29; married; Baptist; graduate of the Medical College of Georgia; one year residency. Available summer of 1963. LW-474

◆

A 29 year old general practitioner, graduate of the University of Tennessee Medical School, would like clinical, assistant, associate, industrial, or institutional practice in any city in Tennessee. Married; Protestant; Tennessee license. Available immediately. LW-475

◆

A 28 year old general practitioner, now interning, is interested in clinical practice in East Tennessee. Will consider institutional or industrial. Married; Presbyterian; graduate of University of Tennessee. Available September 1963. LW-476

A 31 year old Board certified surgeon, candidate of American College of Surgeons, would like clinical or associate practice in Tennessee city of 40,000 plus. Married; Methodist; graduate of Vanderbilt School of Medicine; now in military service. Available July 1963. LW-477

Physicians Wanted

Physician in East Tennessee city of 6,000 wishes an associate in general practice. Age 25-35, with one year internship. New, private office; examining rooms and equipment available. Hospital located in community. PW-134

◆

Small Southern Tennessee community, of slightly over 500, in need of general practitioner. Trade area larger. No other physician in community. Office space and some equipment available. PW-147

◆

A hospital in upper East Tennessee county with population of over 30,000 would like general surgeon to establish his own practice in that area. Physician with one year internship and three years residency preferred. Board qualified or Board certified. Good industrial area with excellent schools and churches. PW-173

◆

Small Northern Tennessee town in great need of physician. Approved for Sears-Roebuck Foundation assistance. No other physician in community. Medical economic survey report available upon request. PW-177

◆

Excellent opportunity for Obstetrician or General Practitioner in East Tennessee city of 25,000. Office next to hospital for lease. Will introduce. Owner moving to Florida when occupant obtained. PW-183

◆

FOR SALE: Office and office equipment in Middle Tennessee town of 6,000. Excellent opportunity for young physician. Support of civic organizations assured. PW-184

◆

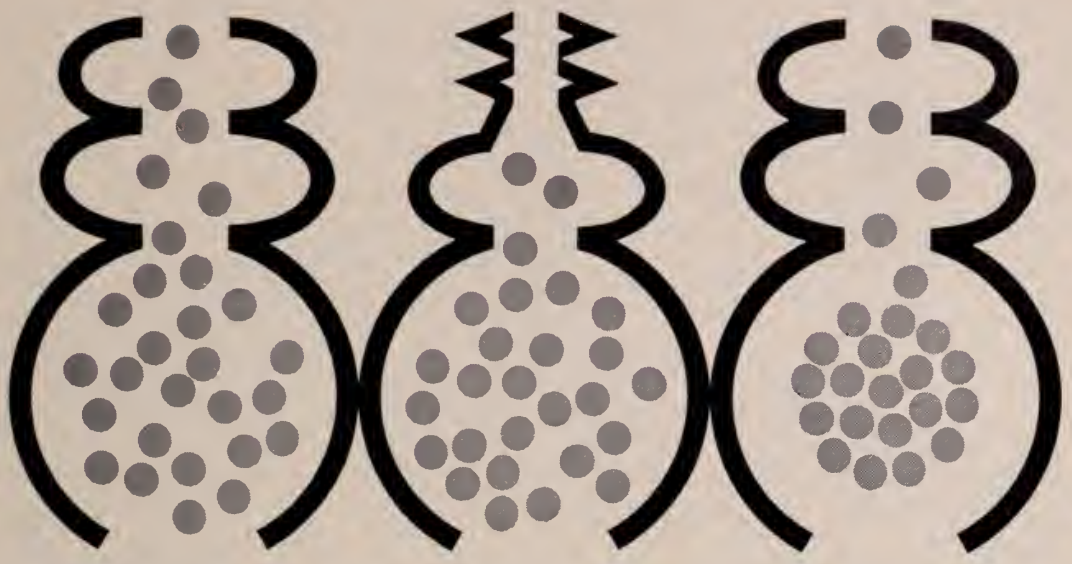
Small upper East Tennessee community in need of physician to replace retired general practitioner. Approved for Sears-Roebuck Foundation assistance. Survey report available upon request. Housing and office space available. Near industrial area. PW-185

◆

General practitioner needed as an associate or immediate partnership to right person, in Middle Tennessee town of over 5,000 (23,000 county). New clinic, fully equipped with X-ray, laboratory, emergency room, ten examining rooms, consultation rooms, and library, all air-conditioned. Across street from 62 bed hospital. Full surgical and obstetric privileges available. Industrial and farming community. PW-186

◆

Immediate opening for radiologist in modern, progressive hospital in Middle Tennessee city of 10,000 plus. Thriving industrial and farming community. Excellent opportunity. PW-187



lowers motility | relieves cramping | stops diarrhea

LOMOTIL® Antidiarrheal tablets and liquid

(brand of diphenoxylate hydrochloride with atropine sulfate)

Traditionally the most effective means of slowing excess intestinal motility in diarrhea and so of relieving the disorder have been the opium derivatives. Now Lomotil makes available an antidiarrheal agent[1] of greater therapeutic efficiency than morphine.

By controlling hypermotility, the basic mechanical dysfunction of diarrhea, Lomotil reduces the frequency and fluidity of stools, diminishes cramping and controls diarrhea in many patients in whom other drugs have proved inadequate.

In a recent clinical report Cayer and Sohmer[2] state: "The alleviation of symptoms [with Lomotil] was usually prompt, occurring within 24 to 72 hours even in the long-standing chronic cases. . . . A surprisingly satisfactory response was obtained in 75 per cent of the patients with regional enteritis and in 63 per cent of those with ulcerative colitis, all of whom had failed to respond to other measures."

The high therapeutic efficiency of Lomotil, its safety, convenience and economy may be used to advantage in acute or chronic diarrhea.

Dosage: For *adults* the recommended initial dosage is two tablets (2.5 mg. each) three or four times daily. Maintenance dosage may be as low as two tablets daily.

Lomotil is supplied as unscored, uncoated white tablets of 2.5 mg. and as liquid containing 2.5 mg. in each 5 cc. A subtherapeutic amount of atropine sulfate (0.025 mg.) is added to each tablet and each 5 cc. of the liquid to discourage deliberate overdosage. Recommended dosage schedules should not be exceeded.

Note: Lomotil is an exempt preparation under Federal narcotic statutes.

Detailed information and directions for use in children and adults are available in Physicians' Product Brochure No. 81. G. D. Searle & Co., P. O. Box 5110, Chicago 80, Illinois.

1. Janssen, P. A. J., and Jageneau, A. H.: A New Series of Potent Analgesics: Dextro 2:2-Diphenyl-3-Methyl-4-Morpholino-Butyrylpyrrolidine and Related Amides. I. Chemical Structure and Pharmacological Activity, J. Pharm. Pharmacol. 9:381-400 (June) 1957.
2. Cayer, D., and Sohmer, M. F.: Long-Term Clinical Studies with a New Constipating Drug, Diphenoxylate Hydrochloride, N. Carolina Med. J. 22:600-604 (Dec.) 1961.

G. D. SEARLE & CO. *Research in the Service of Medicine*



For peptic ulcer gastric hyperacidity and gastritis...

In year-long study on peptic-ulcer patients

New Creamalin®
Antacid Tablets

*"...faster in onset of action...and for a longer period"**

"Clinical studies in 85 patients with duodenal ulcer ...confirmed the superiority of the new preparation [new Creamalin] over standard aluminum hydroxide preparations, in that prompt relief was achieved and maintained throughout the period of observation."*

Patients were followed for about one year.

New Creamalin promotes ulcer healing, permits less frequent feedings because it is so long-acting. Heartburn and epigastric distress were "...easily and adequately controlled...."* New Creamalin has the therapeutic advantage of a liquid antacid with the convenience of a palatable tablet. *It does not cause constipation.*

Each new Creamalin tablet contains 320 mg. of specially processed highly reactive dried aluminum gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles offer a vastly increased surface area.

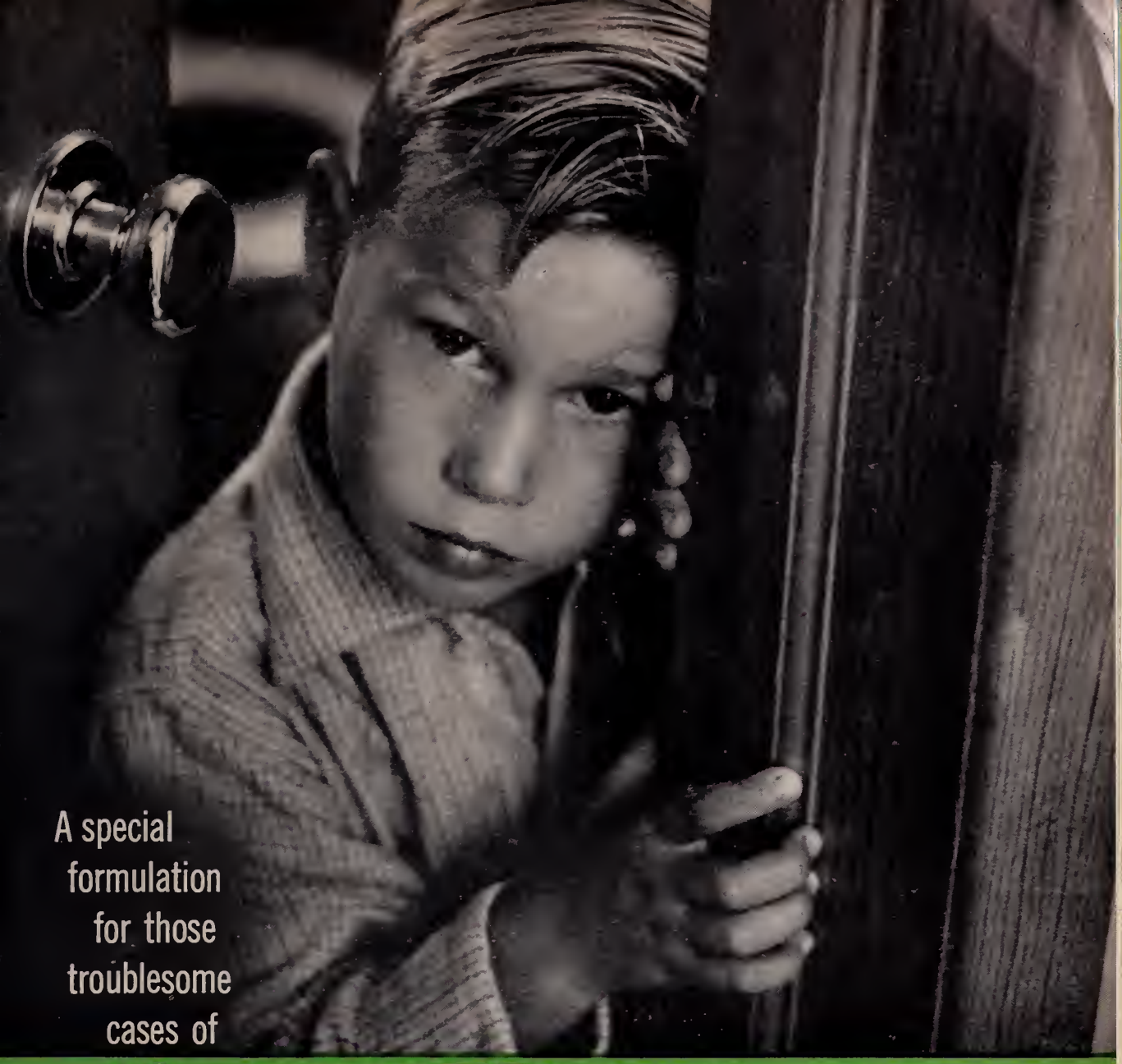
Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours. *How Supplied:* Bottles of 50, 100, 200 and 1000.

Now also available—New Creamalin Improved Formula Liquid. Pleasant mint flavor—creamy pink color. Stabilized reactive aluminum and magnesium hydroxide gel (1 teaspoon equals 1 tablet). Bottles of 8 and 16 fl. oz.

Creamalin, trademark reg. U.S. Pat. Off.

*Schwartz, I. R.:
Current Therap. Res. 3:29, Feb., 1961

Winthrop LABORATORIES New York 18, N. Y.



A special formulation for those troublesome cases of acute nonspecific diarrhea

DONNAGEL®-PG

Donnagel® with paregoric equivalent

Provides greater assurance of more comprehensive relief in acute self-limiting diarrheas through the time-tested effectiveness of two outstanding antidiarrheals—DONNAGEL and a paregoric equivalent. *Tastes good, too!*

Each 30 cc. (1 fl. oz.) of DONNAGEL-PG contains:

Powdered opium U.S.P. (equivalent to paregoric 6 ml.)	24.0 mg.
Kaolin	6.0 Gm.
Pectin	142.8 mg.
Natural belladonna alkaloids	
hyoscyamine sulfate	0.1037 mg.
atropine sulfate	0.0194 mg.
hyoscine hydrobromide	0.0065 mg.
Phenobarbital (¼ gr.)	16.2 mg.

SUPPLIED: Pleasant-tasting banana flavored suspension in bottles of 6 fl. oz.

Also available:

DONNAGEL® with NEOMYCIN — for control of bacterial diarrheas.

DONNAGEL® — the basic formula — when paregoric or an antibiotic is not required.

A. H. ROBINS CO., INC.
RICHMOND 20, VIRGINIA

SYNergized
aspIRIN

Synirin®

ANALGESIA

WITH A DOSAGE AS FLEXIBLE AS ASPIRIN

The simultaneous action of aspirin and pentobarbital begins promptly and lasts four to five hours. Each tablet contains aspirin 5 grs. and pentobarbital (acid) 1/8 gr. Synirin was formulated for a two-tablet dose for adults and a one-tablet dose for children from 5 to 12 years of age. It may be repeated every four hours for the relief of pain.

Dispensed in bottles of 100 and 1000 tablets

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856



The good life–just what the doctor ordered

Sea and sun are both in his doctor's orders — so is that grapefruit he's eating with such gusto. Citrus fruit is a wonderful way for this patient or any patient to get his daily quota of vitamin C . . . to enjoy something good to eat, tasty and satisfying but not rich.

Not all patients are so lucky as to have retired to Florida, where they can just reach out to pick citrus fruit off their own orange and grapefruit trees. But any patient anywhere can get the same benefits of the natural vitamin C in Florida oranges, grapefruit, and tangerines . . . thanks to modern methods of processing fresh fruit. Whether it is frozen, canned, or in cartons, 98% of the vitamin C content of the fruit is preserved.

Grapefruit and other citrus fruits filled with vitamin C are valuable in the nutrition of every age group. Among the teen-agers, vitamin C is one of the two nutrients most often low in the diet. Infants, too, need generous amounts of vitamin C; and they will take it readily when it comes to them in the form of delicious orange juice.

When your patient chooses *Florida* citrus, he can be sure of getting fruit filled with natural goodness and of just the right sweetness. Florida citrus is unexcelled because a State commission watches over the entire Florida citrus crop to see that it meets the world's highest standards for fresh, frozen, canned, or cartoned citrus fruits or juices.

© Florida Citrus Commission, Lakeland, Florida

Whatever happened to handkerchiefs?



Remember when handkerchiefs were used for stuffy or runny noses? *That was before Naldecon.* Naldecon lets your head-cold patient breathe the way he should. Through the nose. Honest relief that lasts up to 8 hours with one sustained-action tablet. (When you need it, even *half* a tablet retains the sustained-action feature.) The counterbalance between *two* antihistamines and *two* decongestants* usually gives excellent results—seldom causes overstimulation or sedation. Keep handkerchiefs for showing. Prescribe Naldecon.

*Each tablet contains phenylephrine HCl 10 mg., phenylpropanolamine HCl 40 mg., phenyltoloxamine citrate 15 mg., chlorpheniramine maleate 5 mg.—half in the outer layer, half in the sustained-action core. Each teaspoonful (5 cc.) of Naldecon Syrup contains the equivalent of one-half tablet.

NALDECON®

long-acting nasal decongestant/ antihistamine

BRISTOL LABORATORIES
Div. of Bristol-Myers Co.
Syracuse, New York




Since the influenza epidemic of 1918
Burroughs Wellcome & Co.
'TABLOID'
'Empirin' Compound
COMPRESSED

....the first choice of many physicians to relieve aches, pains, fever, and general malaise of colds and flu.

Symptomatic and supportive treatment of patients with upper respiratory infections still consists largely of rest, analgesics, fluids and nasal decongestants. During the fateful influenza epidemic of 1918, 'Empirin' Compound was widely used and became well known as a well tolerated and reliable analgesic combination. It was one of the few available analgesic products effective in simultaneously reducing fever and relieving the general malaise which often accompany the flu.

Later, 'Empirin' Compound with Codeine took its place with the widely used 'Empirin' Compound, as a product useful when increased analgesia or antitussive action was desired. Today, 'Empirin' Compound with Codeine is one of the most widely prescribed drugs in medicine, providing physicians with a dependable analgesic, especially useful in relieving the symptoms of colds and flu. We believe you will also find 'Empirin' Compound with Codeine Phosphate gr. ¼ (16 mg.) or gr. ½ (32 mg.) particularly useful in treating the troublesome cough that is often part of the influenza symptom complex.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE *



gr. ⅛ gr. ¼ gr. ½ gr. 1



* Available on oral prescription where State law permits. Subject to Federal Narcotic Regulations.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

ANNUAL CLINICAL CONFERENCE

CHICAGO MEDICAL SOCIETY

March 4, 5, 6 and 7, 1963

Palmer House, Chicago

Daily Half-Hour Lectures by Outstanding Teachers and Speakers on subjects of interest to both general practitioner and specialist.

Panels on Timely Topics
Medical Color Telecasts

Teaching Demonstrations
Instructional Courses

Film Lectures

Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits.

The Chicago Medical Society Annual Clinical Conference should be a MUST on the calendar of every physician. Plan now to attend and make your reservations at the Palmer House.



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can 75c
Pt. bottle with dispensing can $2.50
Qt. bottle with dispensing can $4.00

Plus post.

White Surgical Supply Co.

SURGICAL SUPPLIES & ACCESSORIES

515 West Church Ave. Knoxville 7, Tennessee

Telephone 3-1186

Today's Health

PUBLISHED BY THE American Medical Association

FOR THE AMERICAN FAMILY

A Good Buy in Public Relations

★ Place it in your reception room

Today's Health is published for the American Family by the American Medical Association, 535 N. Dearborn St.—Chicago 10, Illinois

Give your subscription order to a member of your local Medical Society Woman's Auxiliary, who can give you Special Reduced Rates.

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

HIGHLAND HOSPITAL, INC.

FOUNDED IN 1904

ASHEVILLE, NORTH CAROLINA

Affiliated with Duke University





A nonprofit psychiatric institution, offering modern diagnostic and treatment procedures—insulin, electroshock, psychotherapy, occupational and recreational therapy—for nervous and mental disorders.
The Hospital is located in a 75-acre park, amid the scenic beauties of the Smoky Mountain Range of Western North Carolina, affording exceptional opportunity for physical and emotional rehabilitation.
The OUT-PATIENT CLINIC offers diagnostic services and therapeutic treatment for selected cases desiring non-resident care.

R. CHARMAN CARROLL, M.D.
Medical Director

ROBERT L. CRAIG, M.D.
Associate Medical Director

JOHN D. PATTON, M.D.
Clinical Director

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

CAN YOU GUARANTEE THAT YOU WON'T BE INVOLVED IN AN ACCIDENT TONIGHT?

Of course not.

But WE GUARANTEE that if you are ever disabled through accident or sickness, we'll PAY YOU EACH MONTH. Wise physicians and dentists are protecting themselves against "Loss of Time" with us.

For full details, without obligation, send the coupon below — TODAY!

PHYSICIANS MUTUAL INSURANCE COMPANY

formerly

Physicians Casualty and Health Associations

"The Doctors Company"

Insuring Physicians & Dentists for 60 years.

Physicians Mutual Insurance Company
115 So. 42nd Street
Omaha 31, Nebraska

Please send me details on your insurance protection plans.

NAME_____ AGE_____

ADDRESS_____

CITY_____ STATE_____

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE STATE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

TAYLOR ROBINSON INS. AGENCY
JACKSON, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

VAN CAMP
MUTUAL INSURANCE AGENCY, INC.
MEMPHIS, TENNESSEE

Available to Members Who Qualify

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY

Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
25/75	76.61	183.31
50/150	84.67	202.61
75/225	89.60	214.40
100/300	92.29	220.83

X-RAY—RADIUM OR SHOCK THERAPY

5/15	89.60	152.00
25/75	153.22	259.92
50/150	169.34	287.28
75/225	179.20	304.00
100/300	184.58	313.12

1. Partnership liability, increase premium for each partner by 20%
2. Obstetricians and Gynecologists take Surgeons rates
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Higher limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability

*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James K. Ward, M.D.
Phones WOrth 1-1151

A few positions on the Medical Staff of the Kennedy Veterans Administration Hospital, Memphis, Tennessee, are now available to physician applicants. These vacancies exist in the Medical Service, which includes Pulmonary Diseases, and General Medicine in the Admitting-Outpatient Service. Physicians salaries are commensurate with professional qualifications and experience. Board certification permits 15% additional salary. V.A. benefits include family hospitalization plan, with medical and surgical coverage, Federal Life Insurance, periodic pay increases, regular working schedules, and liberal retirement factors. Interested physicians may write the Chief of Staff, Kennedy Veterans Administration Hospital, Memphis 15, Tennessee.



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS and SYMPTOMS**: Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS**: Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT**: Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE STATE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN
1104 Sudekum Bldg.
Nashville, Tenn.

SETH W. SIZER
1211 James Bldg.
Chattanooga, Tenn.

THERON M. LEMLY
1309 Poplar Ave.
Memphis, Tenn.

Tennessee State Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

Underwritten By

Commercial Insurance Company

Newark, New Jersey



Colds haven't changed– but relief has with NTZ®

NASAL SPRAY

NTz Nasal Spray provides prompt, dependable decongestion of nasal membranes—for fast relief of colds. NTz is "...singularly effective for nasal congestion due to either allergic or infectious causes."* In a major practice, it has been "an efficient nose drop which has superseded almost all others...."* More than a simple vasoconstrictor, NTz is a combination of three thoroughly evaluated ingredients.

- **N**eo-Synephrine® hydrochloride 0.5 per cent—opens engorged nasal passages, shrinks sinus ostia and provides proper breathing and drainage space.
- **T**henfadil® hydrochloride 0.1 per cent—provides powerful antiallergic action to check rhinorrhea.
- **Z**ephiran® chloride 1:5000 (antibacterial wetting agent and preservative)—promotes spread and penetration to less accessible nasal areas.

NTz is well tolerated by the delicate respiratory tissues. In several hundred patients treated with NTz, there were "...no deleterious effects from...frequent and prolonged use."*

NTz Nasal Spray is also useful in vasomotor (allergic) rhinitis and sinusitis. It is best used twice within five minutes. Supplied in leakproof, pocket-size, squeeze bottles of 20 ml. and in bottles of 30 ml. with dropper.

*Levin, S. J.: **Pediat. Clin. North America** 1:975, Nov., 1954.

NTz, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran chloride (brand of benzalkonium chloride, refined), trademarks reg. U.S. Pat. Off.

Winthrop

WINTHROP LABORATORIES, NEW YORK 18, N.Y.

Revised Plan

Increased Benefits For Accident and Sickness Available To Members of The Tennessee State Medical Association

Who Can Qualify for This Insurance

Ordinary Accident Benefit	Total Ordinary Accident and Hospital Benefit
$600.00 Per Month	$1,200.00 Per Month (3 months)

Monthly Benefits are payable from the First Day of Disability and will be paid during your entire lifetime as long as totally disabled from accident.

Sickness Benefit	Total Sickness and Hospital Benefit
$600.00 Per Month	$1,200.00 Per Month (3 months)

Sickness Monthly Benefit ten years certain if totally disabled.

General Provisions

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.00
May be written from $100.00 to $600.00 per month inclusive
Monthly Accident Benefits from First Day
Monthly Sickness Benefits from First Day
May also be issued with elimination periods, if desired
Individually NON-CANCELLABLE EXCEPT for—

- Non-Payment of Premium
- Retired from Practice
- Loss of Membership in The Tennessee State Medical Association

Guaranteed Renewable to age 70 Renewable thereafter at the option of the Company.

Sovereign States Insurance Company

1808 WEST END AVENUE
NASHVILLE, TENNESSEE

For full information without obligation, contact our Home Office, 1808 West End Avenue, Nashville

Professional Department, Sovereign States Insurance Co.

Please send complete information relative to program offered in The Tennessee Medical Journal.

NAME _____ AGE _____

ADDRESS _____ TOWN _____

"A Participating Insurance Company Underwriting the Tennessee Plan"

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply

& Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601

BRAWNER HOSPITAL, INC.

(Established 1910)

2932 South Atlanta Road, Smyrna, Georgia

FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION

MODERN FACILITIES

Jas. N. Brawner, Jr., M.D.
Medical Director

Aloysius I. Miller, M.D.
Mark A. Gould, M.D.

Phone HEmlock 5-4486

Today's Health

A GOOD BUY IN PUBLIC RELATIONS

Place it in your reception room

Today's Health is published for the American Family by the American Medical Association, 535 N Dearborn St.—Chicago 10, Illinois

Give your subscription order to a member of your local Medical Society Woman's Auxiliary, who can give you Special Reduced Rates.



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE MARK



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

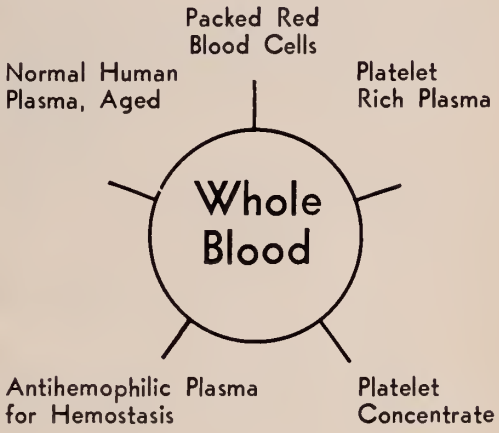
- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN
Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities
KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

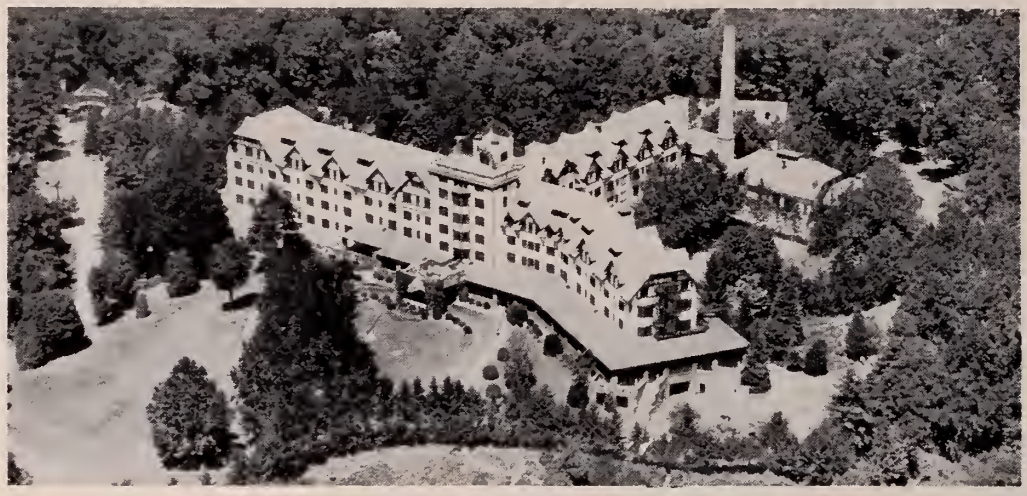
All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE

APPALACHIAN HALL
Established 1916

Asheville North Carolina



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D.
ROBERT A. GRIFFIN, M.D.
MARK A. GRIFFIN, SR., M.D.
MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

Abbott Laboratories	XII	Mayrand, Inc., Pharmaceuticals	X
American Cyanamid Co.	XIX	Mutual Benefit Life Ins. Co.	XLIX
Ames Co., Inc.	LVII	Nashville Surgical Supply Co., Inc.	LIII
Appalachian Hall	LIV	Parke-Davis and Company	II, III
Arnar-Stone Laboratories, Inc.	IX, XXV	Pfizer Laboratories	XXVI, XXVII
Bayer Co., The	VII	Physicians Mutual Ins. Co.	XLVI
Blood Bank Foundation	LV	Physicians Products Co., Inc.	XXVIII
Brawner Hospital, Inc.	LIV	Poythress, Wm. P. & Co.	VI, XXXVIII
Brayten Pharmaceutical Company	XV	Robins, A. H., Co., Inc.	XXX, XXXVII
Bristol Laboratories	XL, XLI	Roche Laboratories	LVIII
Burroughs Wellcome & Co.	XXXI, XLII, XLIII	Roerig	XX, XXI
Chicago Medical Society	XLIV	St. Albans	XXXII
City View Sanitarium	XLVI	Sardeau, Inc.	VIII
Coca-Cola	LIV	Schering	XXXIII
Endo Laboratories	XI	Searle, G. D. & Co.	XXXV
Farringer & Company	XLVII	Smith Kline & French Laboratories	XXIV
First Texas Pharmaceuticals, Inc.	XXII	Smith, Reed, Thompson & Ellis Co.	L
Florida Citrus Commission	XXXIX	Sovereign States Ins. Co.	LII
Guild Opticians	XLV	Squibb	XIV
Highland Hospital, Inc.	XLV	Tafel Surgical Supply Co., Inc.	XLVI
Hill Crest Sanitarium	XLVIII	Today's Health	XLIV, LIV
Kay Surgical, Inc.	LV	Wallace Laboratories	XVII, XXIII, XXIX
Kennedy VA Hospital	XLVIII	White Surgical Supply Co.	XLIV
Leeming Thomas & Co., Inc.	XVIII	Winthrop Laboratories	V, XVI, XXXVI, L
Lilly, Eli and Co.	I, XXXIV		

neither **stasis** nor **spasm,**
nor **tension**
stays this patient
from his
appointed rounds



DECHOLIN-BB®

. . . . . especially when
UPPER G.I. COMPLAINTS
have biliary implications

Each Tablet Contains:

for biliary/intestinal **stasis** → DEHYDROCHOLIC ACID 250 mg. (3¾ gr.)

for smooth-muscle **spasm** → BELLADONNA EXTRACT 10 mg. (⅙ gr.)

for nervous **tension** → BUTABARBITAL SODIUM 15 mg. (¼ gr.)

Average adult dose: 1 or, if necessary, 2 tablets three times daily. **Precautions:** Observe patients periodically for increased intraocular pressure and barbiturate habituation or addiction; caution drivers against possible drowsiness. **Side effects:** Dehydrocholic acid may cause transitory diarrhea; belladonna may cause blurred vision and dry mouth. **Contraindications:** Biliary tract obstruction, acute hepatitis, glaucoma, prostatic hypertrophy. **Available:** DECHOLIN-BB, bottles of 100 tablets. **Also:** DECHOLIN® with Belladonna (dehydrocholic acid, 250 mg.; belladonna extract, 10 mg.) and DECHOLIN® (dehydrocholic acid, 250 mg.), bottles of 100 and 500 tablets.

34963

AMES

specific
for anxiety
& tension

Librium

The singular specificity of Librium in controlling anxiety and tension has proven to be an advantage in a wide range of disorders characterized by anxiety of varying degrees. Notably effective in patients whose symptoms are primarily emotional, Librium is equally valuable when organic disease is aggravated or prolonged by accompanying anxiety. Coupled with its effectiveness is an outstanding record of safety. Librium has few, if any, of the unwanted side effects associated with tranquilizers and daytime sedatives—no extrapyramidal effects, no autonomic blocking, and no dulling of mental alertness. Consult literature and dosage information, available on request, before prescribing.

the successor to the tranquilizers

LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

ROCHE

ROCHE

THE JOURNAL OF THE

TENNESSEE STATE MEDICAL ASSOCIATION

TENNESSEE STATE MEDICAL ASSOCIATION
ANNUAL MEETING
APRIL 7-10, 1963
ANDREW JOHNSON HOTEL, KNOXVILLE

FEBRUARY, 1963

Volume 56 Number 2

Table of Contents on Page IV
Index to Advertisers on Page LIV

A TRULY SCIENTIFIC
APPROACH TO COUGH THERAPY

SINGLE-ENTITY, NON-NARCOTIC

NOVRAD®

(levopropoxyphene, Lilly) (as the napsylate)

EFFECTIVELY CONTROLS USELESS COUGH
WITHOUT ADDED OPIATES

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

345517

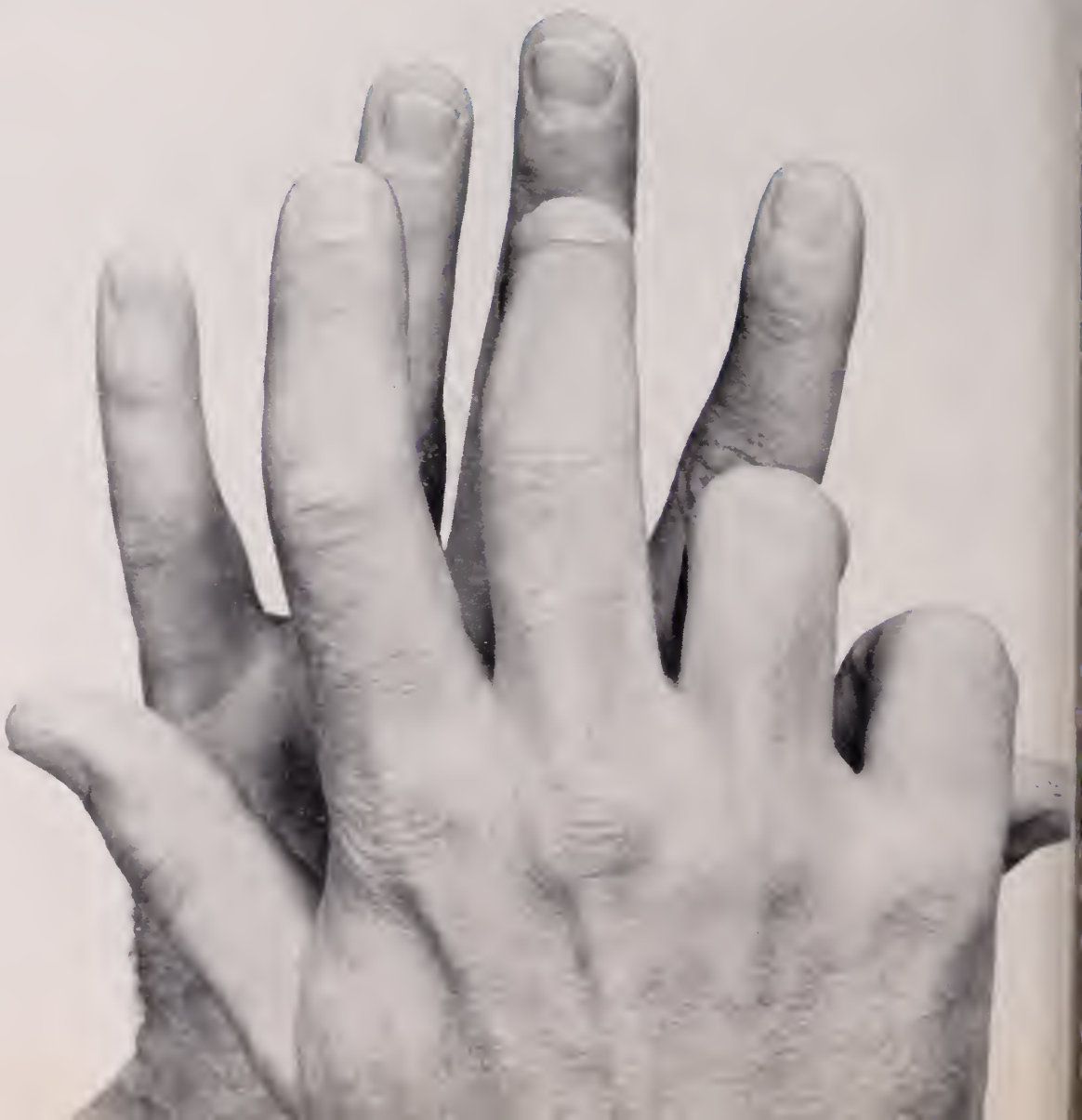
Lilly

in severe respiratory infections
refractory to other measures.

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

for established clinical efficacy against susceptible organisms[1-1]



In Friedlander's Pneumonia[3,13]

Although the prognosis in Friedlander's pneumonia is poor, treatment with CHLOROMYCETIN has shown a good response when susceptible strains of *Klebsiella pneumoniae* are incriminated.

In *Hemophilus Influenzae* Pneumonia[3,4,13,14]

Because the invading organism is usually sensitive to CHLOROMYCETIN, this agent is generally effective in pneumonias caused by *H. influenzae.*

In Staphylococcal Pneumonia[1-8,13]

CHLOROMYCETIN continues to remain effective against many resistant strains of staphylococci, and—alone or in combination with other antibiotics—should be considered when other antistaphylococcal drugs are ineffective.

In Acute Epiglottitis[4,10,11]

This condition is most often caused by *H. influenzae,* most strains of which are sensitive to CHLOROMYCETIN. Therapy should be instituted at once, since the disease may progress from the first symptoms to a severe respiratory obstruction in four to six hours.

In Pneumonias Due to Gram-negative Bacilli[9]

Because of its broad-spectrum activity, CHLOROMYCETIN is often effective in pneumonias caused by sensitive strains of *Aerobacter, Proteus* of various species, *Paracolobactrum,* and other gram-negative pathogens encountered with increasing frequency in serious respiratory tract infections.

In Staphylococcal Empyema[12]

The infiltrating lesions of staphylococcal empyema are often difficult to eradicate. While CHLOROMYCETIN should only be used when the infection has been resistant to treatment with other antistaphylococcal drugs, therapy with CHLOROMYCETIN, in conjunction with surgical procedures, will often bring favorable results.

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections such as colds, influenza, or viral infections of the throat, or as a prophylactic agent.

Precautions: It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Thacher, H. C., & Fishman, L.: *J. Maine M. A.* **52**:84, 1961. (2) Hopkins, E. W.: *Postgrad. Med.* **29**:451, 1961. (3) Hall, W. H.: *M. Clin. North America* **43**:191, 1959. (4) Krugman, S.: *Pediat. Clin. North America* **8**:1199, 1961. (5) Ede, S.; Davis, G. M., & Holmes, F. H.: *J.A.M.A.* **170**:638, 1959. (6) Wolfsohn, A. W.: *Connecticut Med.* **22**:769, 1958. (7) Calvy, G. L.: *New England J. Med.* **259**:532, 1958. (8) Hendren, W. H., III, & Haggerty, R. J.: *J.A.M.A.* **168**:6, 1958. (9) Cutts, M.: *Rhode Island M. J.* **43**:388, 1960. (10) Berman, W. E., & Holtzman, A. E.: *California Med.* **92**:339, 1960. (11) Vetto, R. R.: *J.A.M.A.* **173**:990, 1960. (12) Sia, C. C. J., & Brainard, S. C.: *Hawaii M. J.* **17**:339, 1958. (13) Rosenthal, I. M.: *GP* **17**:77 (March) 1958. (14) Gaisford, W.: *Brit. M. J.* **1**:230, 1959.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

03863

The Journal of the TENNESSEE STATE MEDICAL ASSOCIATION

Published Monthly
By Tennessee State Medical Association
OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE
Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 2

FEBRUARY, 1963

Per Year, $5.00
Single Copy, 50 Cents

Published Monthly

Contents

Symposium on Cancer Chemotherapy, Introductory Remarks, RICHARD C. SEXTON, JR., M.D., Moderator, Knoxville, Tenn. 39

Selection Methods and Cancer Chemotherapy Agents, STANFIELD ROGERS, M.D., Knoxville, Tenn. 40

Useful Current Cancer Chemotherapeutic Agents, DAVID A. WHITE, M.D., Oak Ridge, Tenn. 42

Clinical Notes from the Tennessee Heart Association, *Work and the Heart,* J. E. ACKER, M.D., Knoxville, Tenn. 46

The P-R Interval in Thyroid Disease, NAT H. SWANN, M.D., Chattanooga, Tenn. 49

A Review of Congenital Cystic Disease of the Lung, LARRY H. PARROTT, M.D., Keesler AFB, Miss. 52

Staff Conference 55

Clinicopathologic Conference 59

President's Letter 65

Editorial 66

Deaths 68

Programs and News of Medical Societies 68

National News 69

Medical News in Tennessee 69

Personal News 71

Announcements 73

Placement Service 76

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION should be addressed to the Secretary-Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 4, Tennessee.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
R. H. KAMPMEIER, M.D., Editor

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein
Copyright, 1963, by the Tennessee State Medical Journal

Colds haven't changed— but relief has with NTz® NASAL SPRAY

NTz Nasal Spray gives on-the-spot relief for stopped-up noses instantly. Recommended by doctors for 10 years, it provides not one, but three powerful ways to fast relief.

In a carefully balanced formula, NTz contains:

Neo-Synephrine® HCl to shrink swollen nasal tissues and provide enough space for breathing

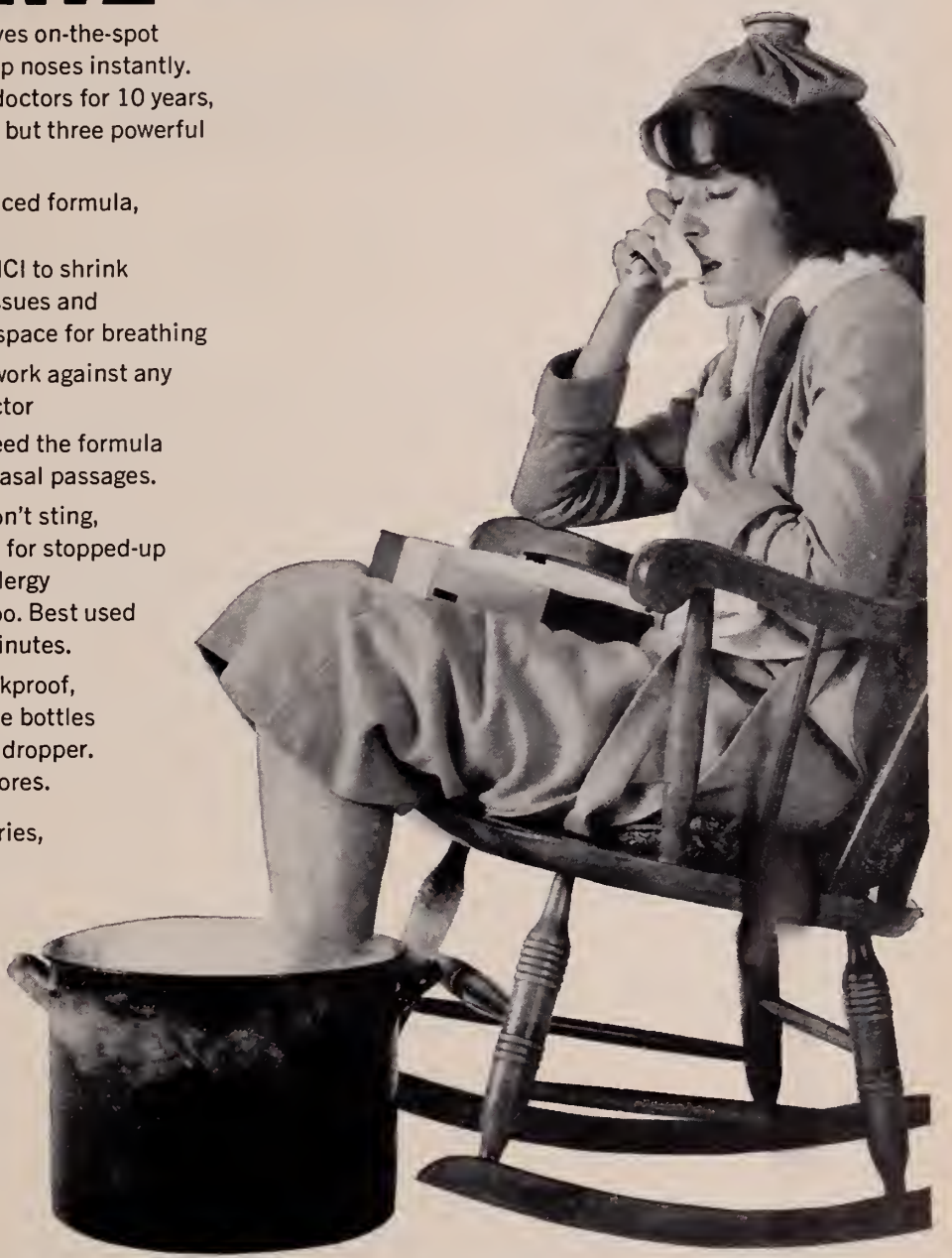
Thenfadil® HCl to work against any local allergic factor

Zephiran® Cl to speed the formula through **all** the nasal passages.

NTz Nasal Spray won't sting, won't irritate. Good for stopped-up noses caused by allergy and for sinusitis, too. Best used **twice** within five minutes.

NTz supplied in leakproof, pocket-size squeeze bottles and in bottles with dropper. Sold only in drugstores.

Winthrop Laboratories, New York 18, N. Y.



Winthrop

NTz, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran (brand of benzalkonium, as chloride, refined), trademarks reg. U. S. Pat. Off.

mudrane®

the bronchodilator
with the intermediate dose of KI

A combination of the four most widely used drugs for the treatment of asthma. Each Mudrane tablet contains Potassium Iodide 3 grains, Aminophylline 2 grains, Ephedrine HCl ¼ grain, Phenobarbital ⅓ grain . . . compounded for prompt absorption and balanced action, and buffered for tolerance.

Dispensed in bottles of 100 and 1000 tablets

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

Bockus — Gastroenterology
Volume I — Just Published!

New (2nd) Edition! The first volume of this highly respected 3-volume work has been completely revised. The entire set of books will cover every known disease and condition of the gastrointestinal tract and associated organs. The author emphasizes a sound clinical approach to each problem, and carefully explains the causes and mechanisms responsible for each complaint. *Volume I* incorporates all important advances in therapy for diseases of the *esophagus and stomach*. New chapters are included on topics such as: *Oral Manifestations of Internal Disease; Tests Employed in the Study of Esophageal Function and Disease*. More than 150 pages are devoted to modern methods of diagnosis and management of peptic ulcer, with special emphasis on complications. A particularly significant new section shows endoscopic views of the esophagus and stomach, in magnificent color.

By HENRY L. BOCKUS, M.D., Emeritus Professor of Medicine, University of Pennsylvania Graduate School of Medicine. With Contributions by 31 Former and Present Associates of the University of Pennsylvania Schools of Medicine. Three Volumes totalling about 3000 pages, 7"x10", about 600 illustrations, some in color. *Volume I, Esophagus and Stomach*, 958 pages, 298 illustrations, $25.00, *Just Published. Volume II, ready August, 1963. Volume III, ready January, 1964.* *New (2nd) Edition!*

Meares — Management of the Anxious Patient

New! Here is a clearly written guide giving you specific instructions on managing patients suffering from anxiety or from disorders that may be based on emotional conflict or stress. Dr. Meares describes and explains the steps he uses in therapy. In a personal, informal presentation, devoid of esoteric jargon, the author tells you from what sources anxiety may spring. He shows you how anxiety can often be resolved without digging into your patient's past for childhood or infantile conflicts. He tells you *how to conduct the interview—how to elicit evidence of conflict—how to conduct the physical examination—how to use suggestion, drugs, etc.—how to avoid common treatment errors*. Dr. Meares describes the symptoms of anxiety as they appear in each body system. He also shows you how to manage anxiety in obstetrics, pediatrics and surgery.

By AINSLIE MEARES, M.D., D.P.M., Author of *The Medical Interview, A System of Medical Hypnosis, The Door of Serenity, Shapes of Sanity, Marriage and Personality, Hypnography,* and *The Introvert*. About 496 pages, 6"x9¼". About $9.00.
New—Just Ready!

Today's Best Treatments



1963 Current Therapy

Here are the surest, most effective treatments known to medical science today for every disease you are likely to encounter. New and important changes in treatment for hundreds of diseases are detailed—diseases you may well be called on to treat within the year. Each is written specifically for *1963 Current Therapy* by an authority who is using it today.

This volume represents an extensive revision. Nearly 70% of the articles are changed in a significant manner. Among the 197 rewritten and revised articles you'll find: *Newer penicillins in the treatment of meningitis*—Treatment of whooping cough in the young infant—*Control of antibiotic-resistant staphylococci*—Newer knowledge of oral iron therapy—*Latest information on treatment of hepatitis*—Newest advice on treatment of adrenal insufficiency—*Action of sterols (Vitamin D and related agents)*—Management of conditions causing enuresis—*Relationship of hyperparathyroidism to urinary calculi*—Milk-alkali (Burnett's) syndrome—*Steroid spray in nickel dermatitis* — Elevated shoulder syndrome as a cause of headache—*Enzymes in management of postphlebitic syndrome*—Treatment of coma with analeptic drugs.

By 306 EMINENT AUTHORITIES Selected by a Special Board of Consultants. Edited by HOWARD F. CONN, M.D. About 864 pages, 8"x10½". About $13.00. *New—Just Ready!*

Order from W. B. SAUNDERS COMPANY
West Washington Square
Philadelphia 5

Saunders Books

SJG-2-63

Please send me the following books and bill me: ☐ Easy Pay Plan ($5 per mo.)
☐ 1963 Current Therapy, about $13.00
☐ Bockus' Gastroenterology, Volume I, $25.00
☐ Send Volumes II and III when ready
☐ Meares' Management of the Anxious Patient, about $9.00

Name_____

Address_____

Thorazine® is not an analgesic

brand of chlorpromazine

but it can help you relieve the suffering of your patient in PAIN . . .

by reducing the anxiety and fear that intensify pain

by potentiating analgesics—enabling you to reduce narcotic dosage by 50 to 75%

and by controlling nausea and vomiting.

'Thorazine' is particularly useful in the severe pain seen in your cancer, surgical, and obstetrical patients. It is available in a wide variety of dosage forms, including injection, Spansule® sustained release capsules, suppositories, syrup and tablets.

For prescribing information, please see *PDR* or SK&F literature.

SK&F *Smith Kline & French Laboratories*

Photograph professionally posed.



MEAN INCREASE OF 80% IN CORONARY BLOOD FLOW*

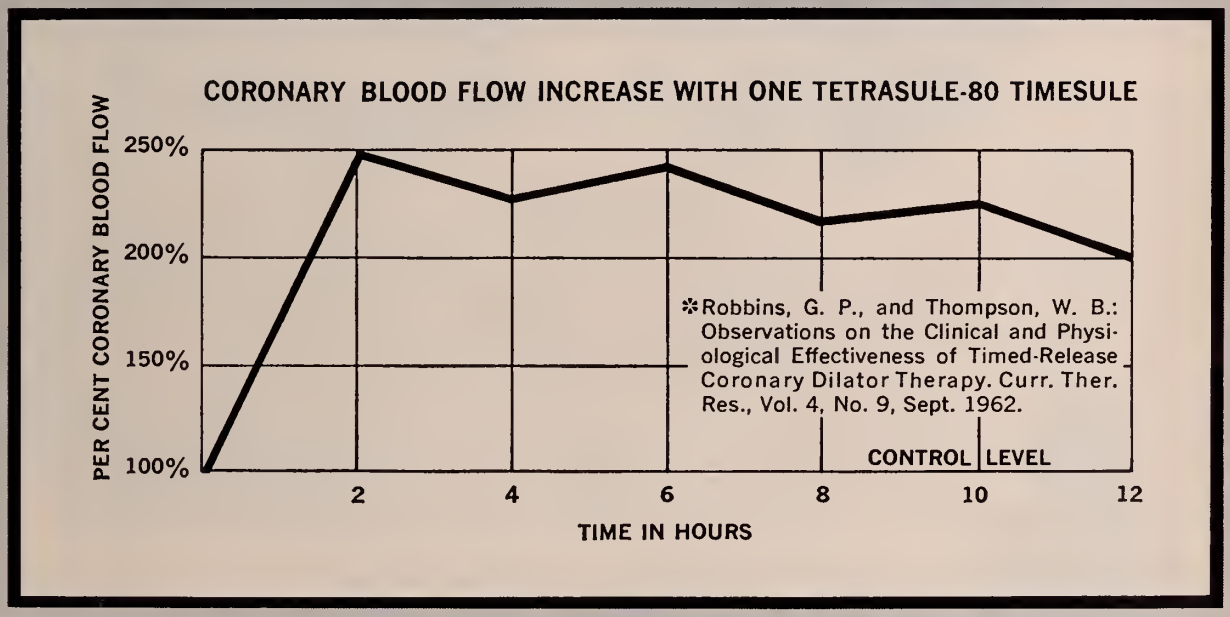
For your
angina patients
continuous protection
all day,
all night



Tetrasule®
Pentaerythritol Tetranitrate, Arnar-Stone

Therapy with TETRASULE TIMESULES®, Timed-release capsules:

dilates coronary arteries → increases coronary blood flow → helps nourish oxygen-deficient myocardium → minimizes frequency of attacks and reduces their severity should they occur → reduces nitroglycerine requirements



With a Tetrasule Timesule, release of PETN is timed-phased over 12 hours and matches PETN need. The pellets are distributed throughout the G-I tract, and release is independent of enzymatic activity or motility. Thus, constant availability of PETN—no peaks or valleys—is assured.

B.i.d. dosage of Tetrasule Timesules provides continuous protection—all day, all night—including the critical early A.M. hours. This 12-hour protection was confirmed by a recent study of Robbins and Thompson , as demonstrated in the above chart.

SUPPLIED: Tetrasule, 30 mg. PETN; Tetrasule-S, 30 mg. PETN and 30 mg. Amobarbital (warning, may be habit-forming); Tetrasule-80, 80 mg. PETN.

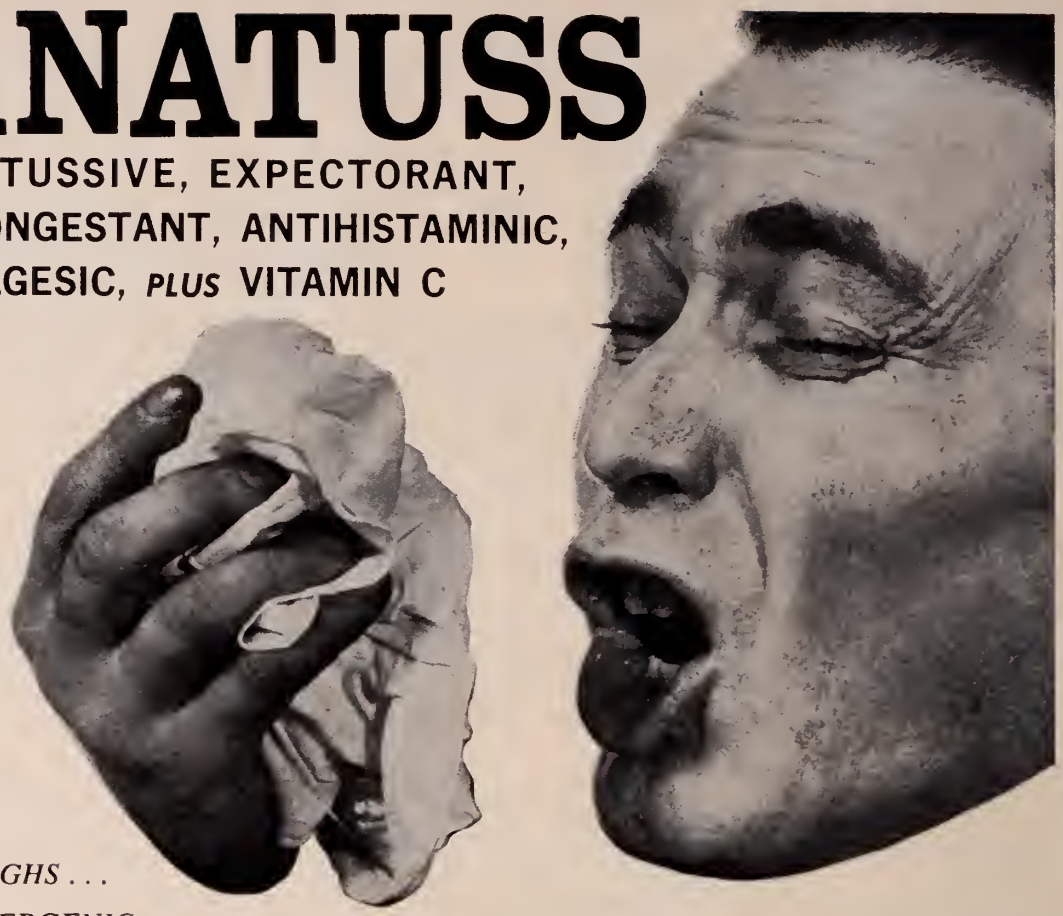
CAUTION: Federal law prohibits dispensing without prescription. Use with caution in glaucoma and severe anemia.

For reprints of the above study or a clinical supply write to:

ARNAR-STONE Laboratories, Inc.
STORCK PHARMACEUTICALS DIVISION
Mount Prospect, Illinois

ANATUSS

ANTITUSSIVE, EXPECTORANT, DECONGESTANT, ANTIHISTAMINIC, ANALGESIC, *PLUS* VITAMIN C



- *COUGHS . . .*
- *ALLERGENIC REACTIONS . . .*
- *NASAL CONGESTION . .*
- *MINOR PAIN . . .*



ANATUSS TABLETS' UNIQUE PRESS COATING COMBINES 7 ACCEPTED INGREDIENTS FOR A 7 PRONG ATTACK ON RESPIRATORY SYMPTOMS . . .

At last — here is a tablet containing previously incompatible drugs which could not be administered in a single dosage form. ANATUSS is valuable in treating irritating coughs associated with allergic bronchitis or rhinitis; coughs and allergenic conditions associated with the common cold; chronic non-specific bronchitis; acute pharyngitis with cough; chronic pulmonary disease; post influenzal cough.

Each Tablet Contains:

IN OUTER COATING

Glyceryl Guaiacolate ..... 50 mg. N-Acetyl-P-Aminophenol ..... 300 mg.

IN INNER CORE

Dextromethorphan Hydrobromide ..... 10 mg. Phenylephrine Hydrochloride ..... 5 mg.
Phenylpropanolamine Hydrochloride 25 mg. Chlorpheniramine Maleate ..... 2 mg.
Ascorbic Acid ..... 100 mg.

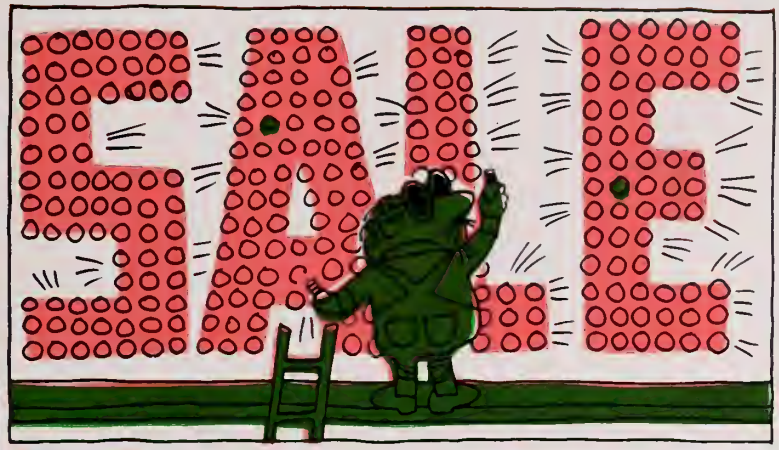
Available in Bottles of 100 and 500 tablets. **ALSO** as **ANATUSS SYRUP**, combining the same valuable ingredients in a pleasantly flavored base.

SAMPLES AND LITERATURE ON REQUEST

Mayrand, Inc. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA

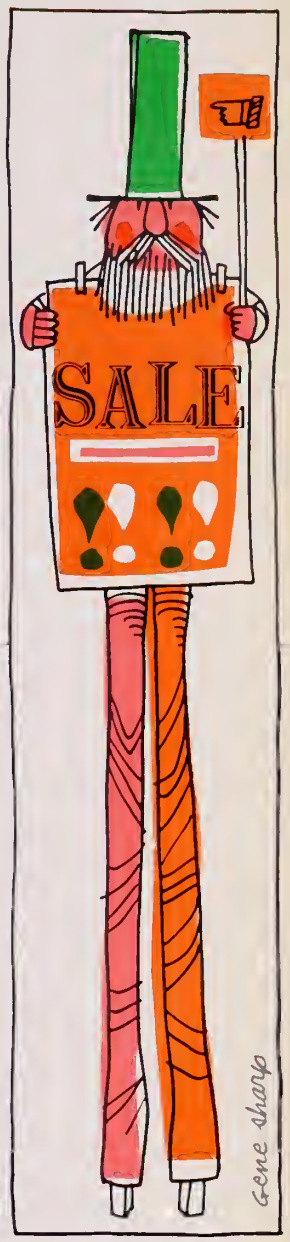
EVERYBODY DOES IT



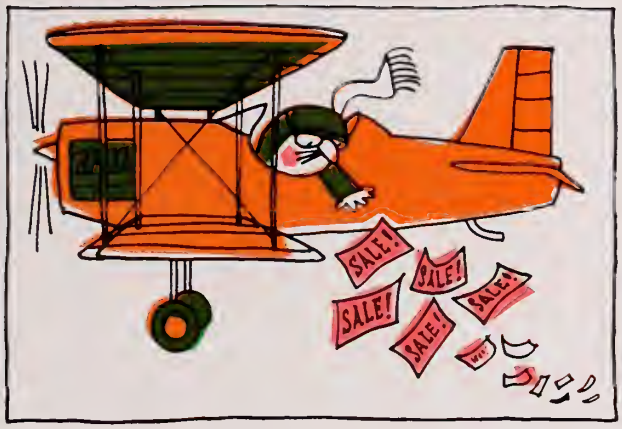














Toot! We have a nice little bargain, too...

Accustomed as we are to talking about purity, potency, stability, things like that, we thought you might like to know that mothers can make a nice saving on Vi-Daylin Chewables for the next few weeks. Nothing complicated. She buys a bottle of 100 at the regular price. She gets a bottle of 30 free. Big deal? Well, not a bad one. It means she's getting her Vi-Daylin for less than 3¢ per daily dose per child. You might find some vitamins somewhere that would cost even less. But will the youngsters take them?

Vi-Daylin—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott

301079

ABBOTT 75TH ANNIVERSARY



These Chewables Taste as Good as They Look

(AND THEY'RE SUGAR-FREE, THANKS TO SUCARYL®)

First cousin to an orange. Next door neighbor to a lemon – that's new VI-DAYLIN® CHEWABLE with *Entrapped* Flavor.

They look like footballs and smell like candy and you've never tasted a chewable vitamin quite like them. What surprises you is not so much what you taste as what you *don't* taste. Vitamins. They simply don't come through – either in taste or aftertaste. Even the riboflavin is trapped and civilized.

Our dual coating process does it – seals the raw vitamin tastes, protects the delicate flavoring agents. Releases the sweet citrus flavor in the mouth, the vitamins in the g-i tract. With *both* vitamins and flavors entrapped, there's just no chance of the tablets turning musty in the bottle.

Rational formula. And sweetened with sugar-free SUCARYL.

If they look good to you, imagine what youngsters will think.

75TH ANNIVERSARY ABBOTT



SUCARYL–Abbott's Non-Caloric Sweetener.

VI-DAYLIN–Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott.

PAPAIN IS THE KEY

to complete, thorough vaginal cleansing

Meta Cine®

mucolytic, acidifying, physiologic vaginal douche



The papain content of Meta Cine is the key reason why it effects such complete cleansing of the vaginal vault. Papain is a *natural* digestant, and is capable of rendering soluble from 200-300 times its weight of coagulated egg albumin. In the vagina, papain serves to dissolve mucus plugs and coagulum.

Meta Cine also contains lactose—to promote growth of desirable Doderlein bacilli—and methyl salicylate, eucalyptol, menthol and chlorothymol, to stimulate both circulation and normal protective vaginal secretions. Meta Cine's pleasant, deodorizing, *non-medicinal* fragrance will meet your patients' esthetic demands.

Supplied in 4 oz. and 8 oz. containers, and in boxes of 30 individual-dose packets. Dosage: 2 teaspoonfuls, or contents of 1 packet, in 2 quarts of warm water.

BRAYTEN

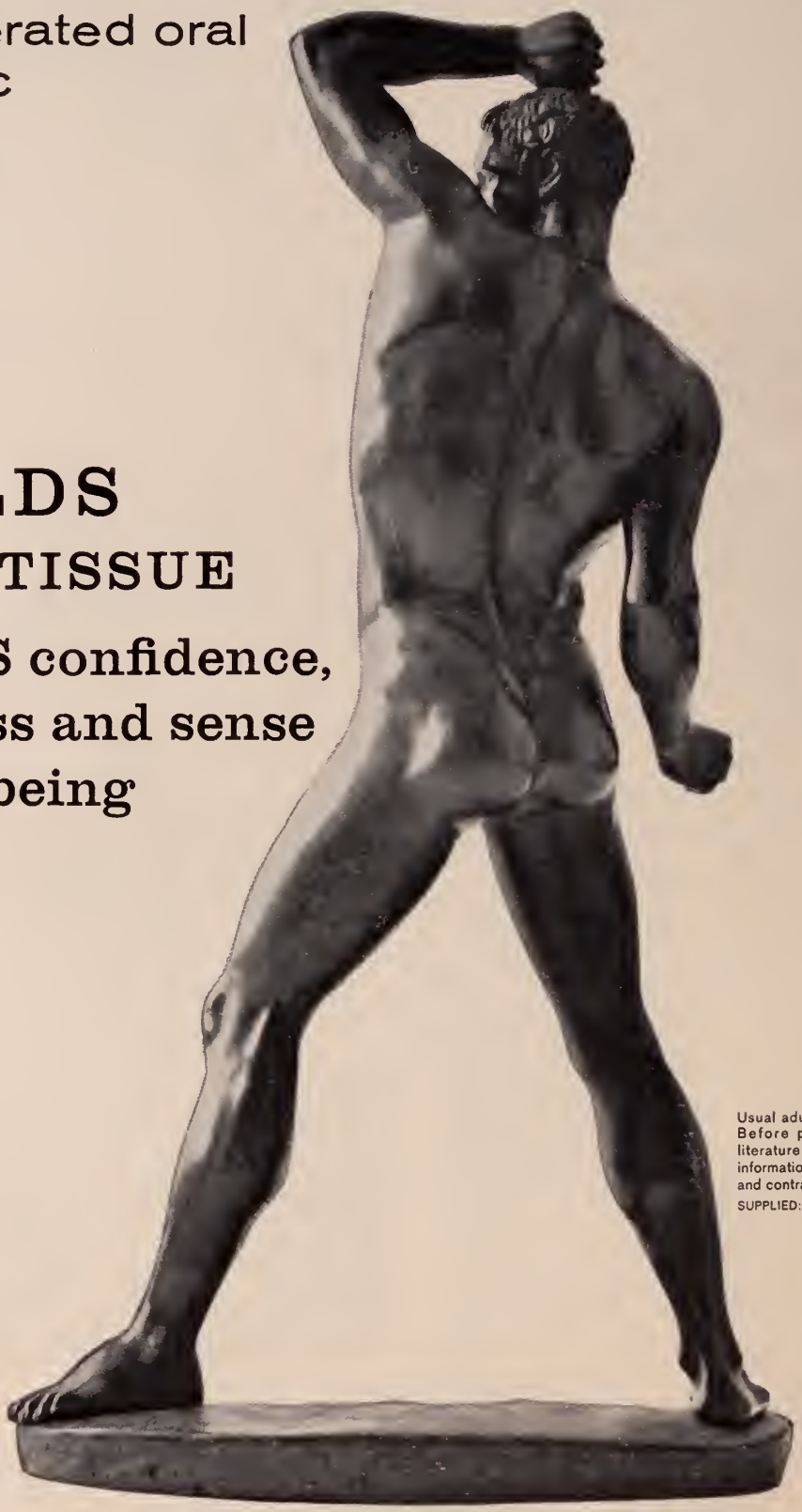
BRAYTEN PHARMACEUTICAL COMPANY *Chattanooga 9, Tennessee*

THE SIGNIFICANT NEW PHYSIOTONIC

WINSTROL®

BRAND OF STANOZOLOL

well tolerated oral anabolic



BUILDS
BODY TISSUE

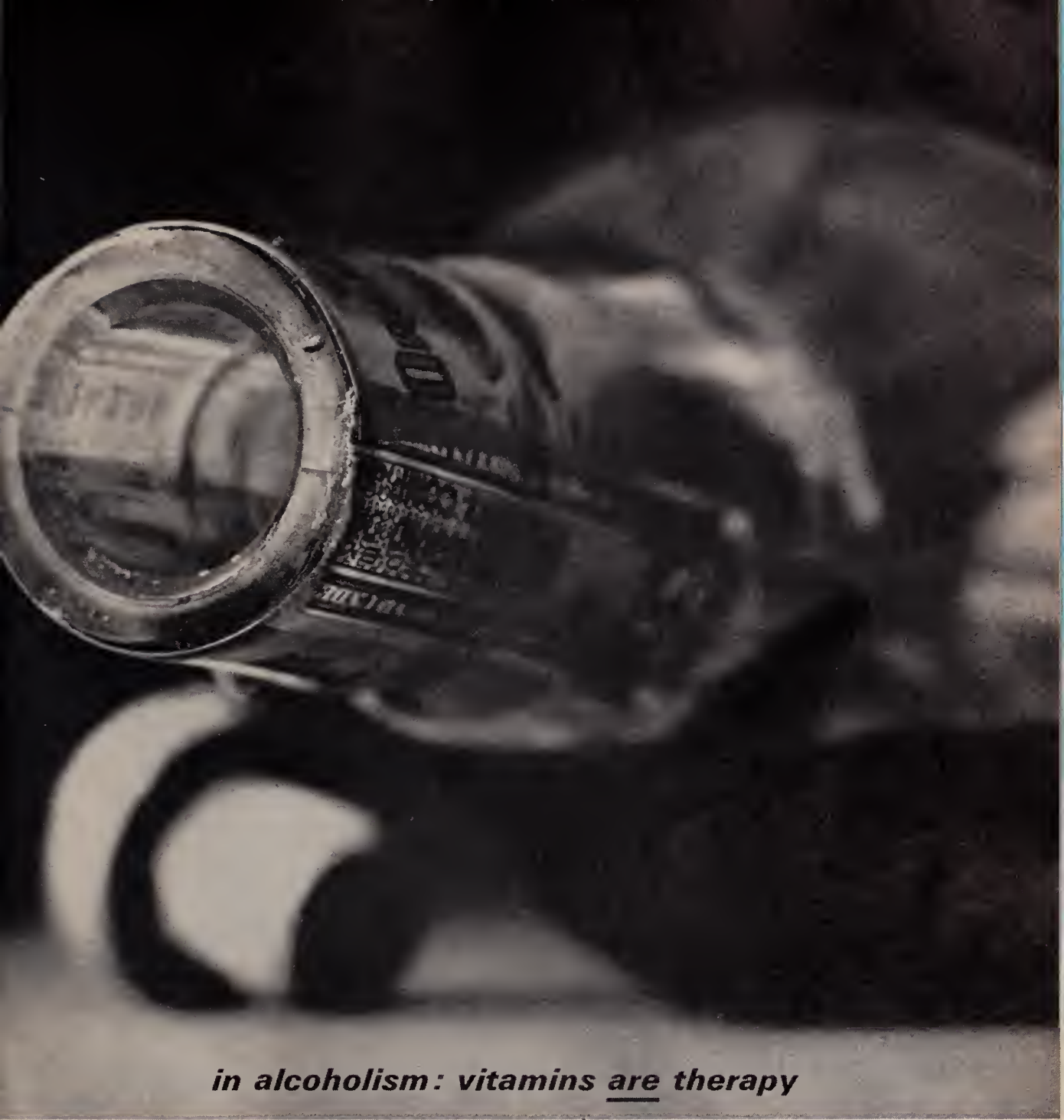
BUILDS confidence, alertness and sense of well-being

Usual adult dose: 1 tablet t.i.d. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.

SUPPLIED: 2 mg. tablets. Bottles of 100.

Winthrop
LABORATORIES
New York 18, N.Y.

With WINSTROL, patients look better...feel stronger—because they are stronger



in alcoholism: vitamins are therapy

A full "comeback" for the alcoholic is partly dependent on nutritional balance... aided by therapeutic allowances of B and C vitamins. Typically, the alcoholic patient is seriously undernourished...from long-standing dietary inadequacy, from depletion of basic reserves of water-soluble vitamins. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle



from tsutsugamushi in Malaya to otitis media in Tennessee

here is a world of experience behind Terramycin®

BRAND OF OXYTETRACYCLINE



Whether treating tsutsugamushi or a host of other infections, physicians throughout the world continue to rely on TERRAMYCIN for its outstanding safety, effectiveness and excellent tolerability. Not a single case of phototoxic reaction, blood dyscrasia or neurologic disturbance directly attributable to TERRAMYCIN has been reported in more than 3,000 clinical papers in the last 12 years. *In your practice, the next infection you see will very likely be "Terra-responsive."*

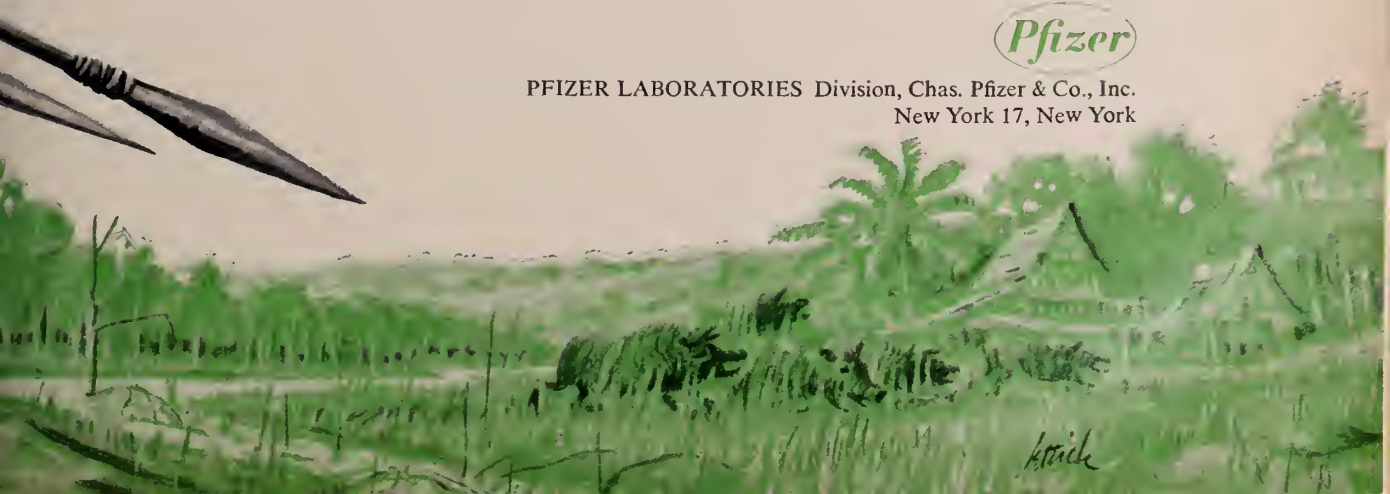
Tsutsugamushi, or scrub typhus, was responsible for incapacitating nearly 7,000 American soldiers during World War II. This disease is prevalent in areas overrun by jungle rats infested with mites carrying *Rickettsia tsutsugamushi*. Symptoms include a primary lesion at the site of the mite-bite, fever reaching as high as 105°, and a cutaneous rash. Injected conjunctivae, deafness, delirium and racking cough mark the advance of the disease. Mortality rates as high as 60 per cent have been reported. Terramycin is one of the antibiotics of choice for rapid and effective control of the acute stage of the infection. Patients become afebrile and virtually asymptomatic 24 to 36 hours after beginning treatment.

IN BRIEF The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using. *More detailed professional information available on request.*

Science for the world's well-being®

Pfizer

PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc.
New York 17, New York



Whatever happened to handkerchiefs?



Remember when handkerchiefs were used for stuffy or runny noses? *That was before Naldecon.* Naldecon lets your head-cold patient breathe the way he should. Through the nose. Honest relief that lasts up to 8 hours with one sustained-action tablet. (When you need it, even *half* a tablet retains the sustained-action feature.) The counterbalance between *two* antihistamines and *two* decongestants* usually gives excellent results—seldom causes overstimulation or sedation. Keep handkerchiefs for showing. Prescribe Naldecon.

*Each tablet contains phenylephrine HCl 10 mg., phenylpropanolamine HCl 40 mg., phenyltoloxamine citrate 15 mg., chlorpheniramine maleate 5 mg.—half in the outer layer, half in the sustained-action core. Each teaspoonful (5 cc.) of Naldecon Syrup contains the equivalent of one-half tablet.

NALDECON®

long-acting nasal decongestant/ antihistamine

BRISTOL LABORATORIES
Div. of Bristol-Myers Co.
Syracuse, New York



Pardon Me!



FOR EFFECTIVE CONTROL . . . OF MOST UNNECESSARY COUGHS

A POTENT antitussive and expectorant (without sugar)

TOLU-SED®

(For prompt relief of a wide variety of coughs, including those associated with colds, bronchitis, throat irritations, influenza, asthma, smoking, smog, dust irritation, and excessive use of the voice.)

EACH FLUID OUNCE CONTAINS:

64.8 mg.	**CODEINE PHOSPHATE***—For its well-known actions in suppressing unnecessary and nonproductive coughs, AND to decrease the viscosity of sputum.
6 mg.	**CHLORPHENIRAMINE MALEATE**—To correct those allergic components which may be due to histamines. (The antihistaminic may contribute the usefulness of this preparation if locally released histamine plays a role in the process which causes the bronchial irritation.)
600 mg.	**GLYCERYL GUAIACOLATE**—To increase the fluidity of respiratory tract secretions. This action decreases the irritating effect of inspissated mucus and facilitates its removal.
2.5 gr.	**TOLU**—Because Tolu has been found useful on an empirical basis for coughs of diverse etiology.
2 min.	**CHLOROFORM**

***Contraindications:**

Codeine phosphate may be habit forming. In very large doses it may depress respiration.

Availability: Pints and Gallons

Administration and Dosage:
For Adults: 1 teaspoonful which may be repeated every 3 or 4 hours.

For Children over 6 years of age: ½ teaspoonful every 4 hours if necessary.

First Texas *Pharmaceuticals, Inc.*

DALLAS • ATLANTA • SINCE 1901

For your elderly arthritic patients



AN EFFECTIVE GERIATRIC ANTIARTHRITIC WITH DISTINCTIVE SAFETY FACTORS

safely indicated
—even when **OSTEOPOROSIS** is present

PABALATE-SF, which has been found "superior to aspirin in the treatment of chronic rheumatic disorders,"[1] possesses distinctive **Safety Factors** for elderly arthritics, even when osteoporosis is present: (1) its potassium salts cannot contribute to sodium retention; (2) its enteric coating assures gastric tolerance; and (3) it does not produce the serious reactions often noted during therapy with steroids or pyrazolone derivatives.

In each persian-rose enteric-coated tablet: potassium salicylate, 0.3 Gm.; potassium para-aminobenzoate, 0.3 Gm.; ascorbic acid, 50 mg.

1. Ford, R. A., and Blanchard, K. P.: J.-Lancet 78:185, 1958.

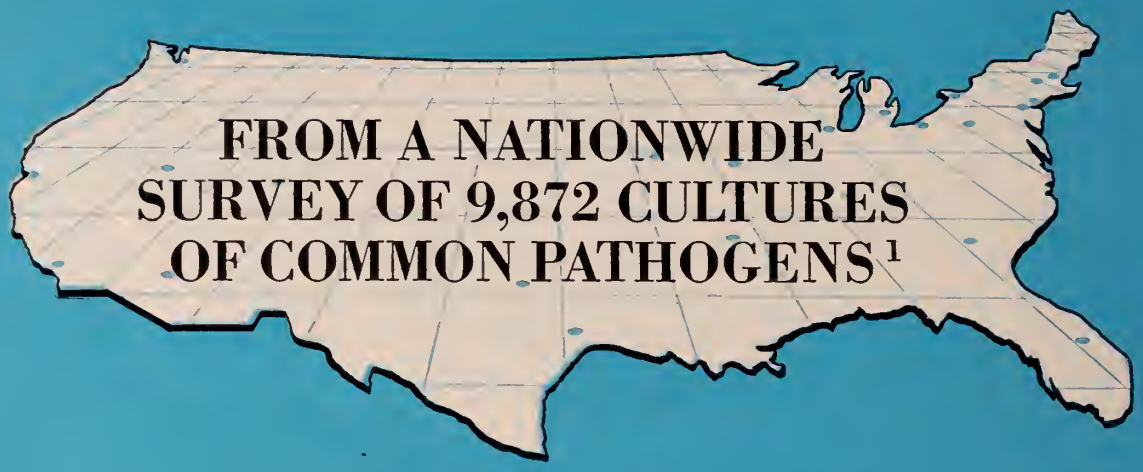
Precaution: Occasionally, mild salicylism may occur, but this responds readily to dosage adjustment. In the presence of severe renal impairment, care should be taken to avoid accumulation of salicylate and PABA. Supply: Bottles of 100 and 500 enteric-coated tablets.

Pabalate®-SF

Robins

(the new, convenient way to prescribe Pabalate-Sodium Free)

A. H. ROBINS COMPANY, INC., RICHMOND, VIRGINIA



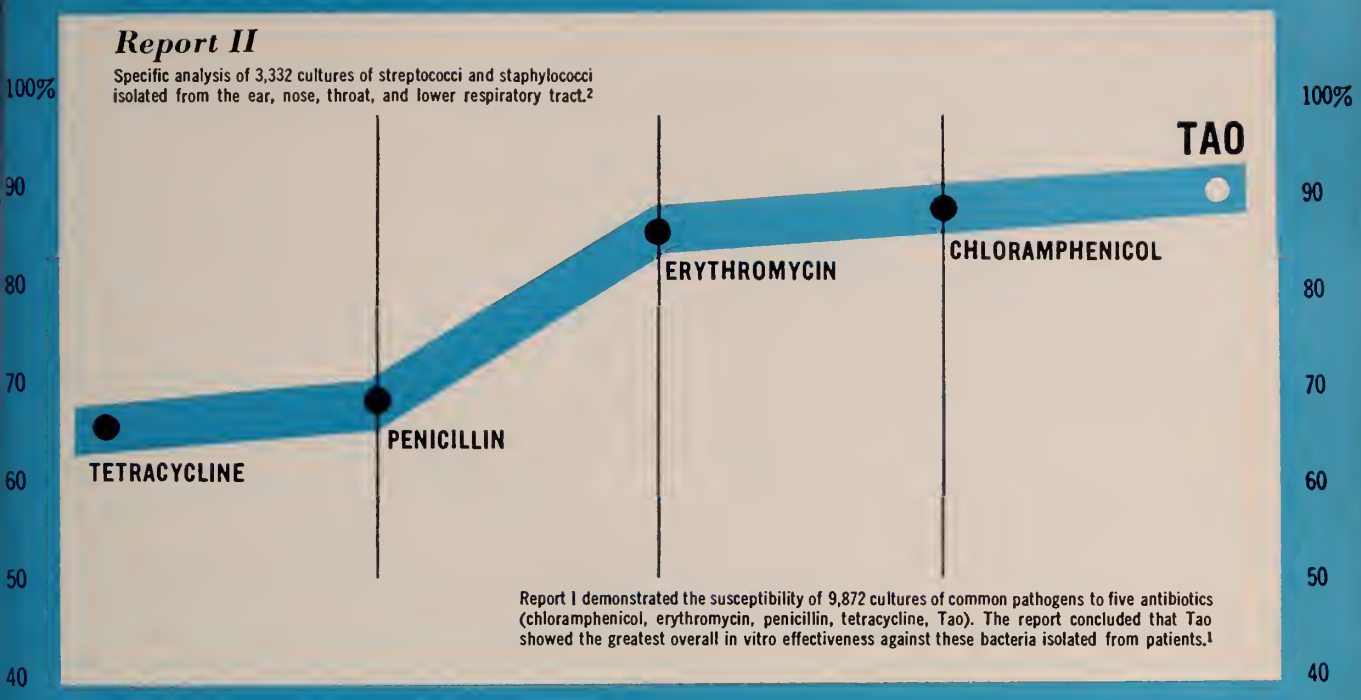
FROM A NATIONWIDE SURVEY OF 9,872 CULTURES OF COMMON PATHOGENS[1]

Conclusions of Nationwide Survey: *Report I*

1. **Even after five years of general use,** Tao, of the antibiotics tested, demonstrated greatest activity against respiratory streptococci and staphylococci (3,332 cultures).

2. **Overall results showed a higher percentage of susceptibility** among these common pathogens to Tao than to the other antibiotics. Susceptibility to Tao was greatest, not only in respiratory streptococci and staphylococci, but also in these organisms isolated from skin and soft tissue (3,423 cultures), genitourinary and gastrointestinal tracts and other sources (2,458 cultures). Susceptibility was equal to all antibiotics tested in pneumococci from unspecified sources (463 cultures), and less to Tao in H. influenzae from unspecified sources (196 cultures).

3. **Tao has been used for five years without development of predictable cross resistance.** In 1958 and 1961, approximately 73% and 70%, respectively, of erythromycin-resistant problem staphylococci showed susceptibility to Tao.[3,4] The present study confirms the continuing high degree of Tao activity even against these pathogens. Of 1,592 cultures of erythromycin-resistant staphylococci, 68% were susceptible to Tao, while in the reverse situation, only 33% of 768 Tao-resistant staphylococci were susceptible to erythromycin.



Report II

Results of Bacterial Susceptibility in 3,332 Respiratory Pathogens

References

1. "Bacterial Susceptibility Patterns: A Geographic Survey." Fowler, J. Ralph, M.D., and Watters, John L., M.D. Scientific Exhibit presented at the Annual Meeting of the American Society of Clinical Pathologists, Chicago, Ill., August 31 to September 9, 1962. 2. Fowler, J. Ralph, Watters, John L. and Levy, Arthur M.: Bacterial Susceptibility Patterns as Related to Geographic Variation and Anatomical Source. In press. 3. English, A. R., and Fink, F. C.: Antibiot. & Chemother. 8:420 (Aug.) 1958. 4. English, A. R., and Fink, F. C.: Antibiot. and Chemother. 11:648 (Oct.) 1961.

New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

If you would like a report of the entire susceptibility study, write Medical Department, J. B. Roerig and Company, 235 E. 42nd St., New York 17, N.Y.



Capsules · Ready-Mixed Oral Suspension · Pediatric Drops · Parenteral (as oleandomycin phosphate)

...WITH 'METHEDRINE' SHE CAN HAPPILY REFUSE!



Controls food craving, keeps the reducer happy — In obesity, "our drug of choice has been methedrine . . . because it produces the same central effect with about one-half the dose required with plain amphetamine, because the effect is more prolonged, and because undesirable peripheral effects are significantly minimized or entirely absent." Douglas, H. S.: West.J.Surg. 59:238 (May) 1951.

'METHEDRINE'®

brand Methamphetamine Hydrochloride

Supplied: Tablets 5 mg., scored. Bottles of 100 and 1000.

Literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and record of safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past seven years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

Clinically proven in over 750 published studies

1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms or liver damage
3. Does not muddle the mind or impair physical activity

CM-7972

ß
BIRTCHER MEDICAL ELECTRONICS

CARDIOLOGY/Electrocardiograph · Cardioscope · Heartpacer® · Defibrillator · Mobile Cardiac Monitoring & Resuscitation Center

ELECTROSURGERY/The Blendtone · Hyfrecator® · Electrosectilis®

PHYSICAL THERAPY/Ultrasonics · Shortwave Diathermy · Ultraviolet · Infrared · Muscle Stimulators · Hydrotherapy



All available on The Exclusive Birtcher Lease Plan

The new Birtcher Lease Plan makes it possible for you to have any of the above in your office with all of the benefits of ownership and the savings of leasing.

For details on the Birtcher Lease Plan or sales and service on Birtcher Medical Electronic equipment call:
HOWARD JENNINGS
P.O. Box 9039, Knoxville, Tennessee, 577-4793



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the
MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can 75c
Pt. bottle with dispensing can $2.50
Qt. bottle with dispensing can $4.00
Plus post.

White Surgical Supply Co.
SURGICAL SUPPLIES & ACCESSORIES
515 West Church Ave. Knoxville 7, Tennessee
Telephone 3-1186

Today's Health
PUBLISHED BY THE American Medical Association
FOR THE AMERICAN FAMILY

A Good Buy in Public Relations

★ Place it in your reception room

Today's Health is published for the American Family by the American Medical Association, 535 N. Dearborn St.—Chicago 10, Illinois

Give your subscription order to a member of your local Medical Society Woman's Auxiliary, who can give you Special Reduced Rates.



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. **172**:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets.
USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

SAINT ALBANS
PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

STAFF

James P. King, M.D., Director

Daniel D. Chiles, M.D.
Clinical Director

James K. Morrow, M.D.

Silas R. Beatty, M.D.

William D. Keck, M.D.

Edward W. Gamble, III, M.D

J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.

Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: DAvenport 5-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Phone: CLifford 3-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
B. B. Young, M.D.
Phone: DIckens 6-7691

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 218, Ext. 55 and 56



"cleared head–able to breathe through nose" . . .or how another happy patient describes the nasal decongestant action of Dimetapp Extentabs.* How would your patients describe it?/In Sinusitis, Colds, U.R.I., up to 10-12 hours' clear breathing on one tablet (containing Dimetane® [brompheniramine maleate], 12.0 mg.; phenylephrine HCl, 15.0 mg.; phenylpropanolamine HCl, 15.0 mg.)./Also available: Dimetapp Elixir, for t.i.d. or q.i.d. dosage.

Dimetapp® Extentabs®

A. H. ROBINS CO., INC., RICHMOND 20, VA

*Clinical report on file, Medical Dept., A.H. Robins Co., Inc

A new, chemically different, skeletal muscle relaxant from Robins:

Skelaxin® brand of metaxalon for prompt relief of spasm





A. H. ROBINS COMPANY, INC., RICHMOND, VIRGINIA

PHARMACEUTICALS 1878 RESEARCH

in acute sprains and strains

Because it acts so promptly, often within a few hours, Skelaxin is specifically recommended for the first treatment of acute muscle spasm associated with sprains and strains, fractures, dislocations, and other acute conditions. Results of clinical tests are impressive. In 595 patients with acute disorders, a favorable clinical response was observed in 507, or 85%.

For some of these patients, the onset of relief from pain was exceptionally prompt. Also, the average recovery time of good-or-excellent-response patients (among those whose recovery time was noted) was just over three days.

How Skelaxin works...

Metaxalone has been studied pharmacologically since 1958. Clinical trials began about a year later. These investigations indicate that Skelaxin blocks reflex spasm and spasticity by suppressing nerve impulses in polysynaptic pathways, primarily in the spinal cord and to a lesser degree at supraspinal levels. It helps restore normal muscle tone without altering posture or gait and without producing sedative, hypnotic, or tranquilizing side effects.

For your prescription...

Robins' metaxalone is available in 400-mg. tablets, in bottles of 50 and 500 tablets.

Skelaxin® metaxalone, 400 mg. per tablet

A. H. Robins Company, Inc., Richmond, Va.

prescribing information:

dosage: For Skelaxin, two tablets t.i.d. or q.i.d. for not longer than 10 days. Dosage for children (6 to 12 years) should be adjusted according to body weight.

side effects: In 1502 patients given daily doses of Skelaxin ranging from 1200 to 9600 mg., 10.5% experienced side effects. These were generally mild, with nausea or gastrointestinal upset being most frequent. Only 0.5% experienced vomiting attributable to the drug, however. Other effects infrequently noted were drowsiness, dizziness, headache, nervousness or "irritability," and a hypersensitivity reaction of light rash. All cleared promptly upon withdrawal of the drug.

precautions: Variations in white cell count and hemoglobin levels have been reported in a few patients. Therefore Skelaxin therapy for more than 10 days is not recommended. A drug relationship was indicated in one of four cases of leukopenia reported in 360 Skelaxin-treated patients. In all cases followed-up, the WBC returned to normal after discontinuance of Skelaxin.

One instance of hemoglobin depression (less than 10 Gm.) which may have been drug-related was reported, in 306 patients; a return to an essentially normal level followed the discontinuance of medication.

One case of jaundice has been reported. Elevation of cephalin flocculation tests in several instances were not paralleled by changes in other liver function parameters. Urinalyses in 280 patients were essentially normal; false positive Benedict's tests, due to an unknown reducing substance in the urine, were reported in 9 patients.

contraindications: Do not administer to patients with known tendency to drug-induced anemia, or give to them only under careful supervision. Not recommended for use during pregnancy.

Robins

RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW 'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.

Also available without codeine as

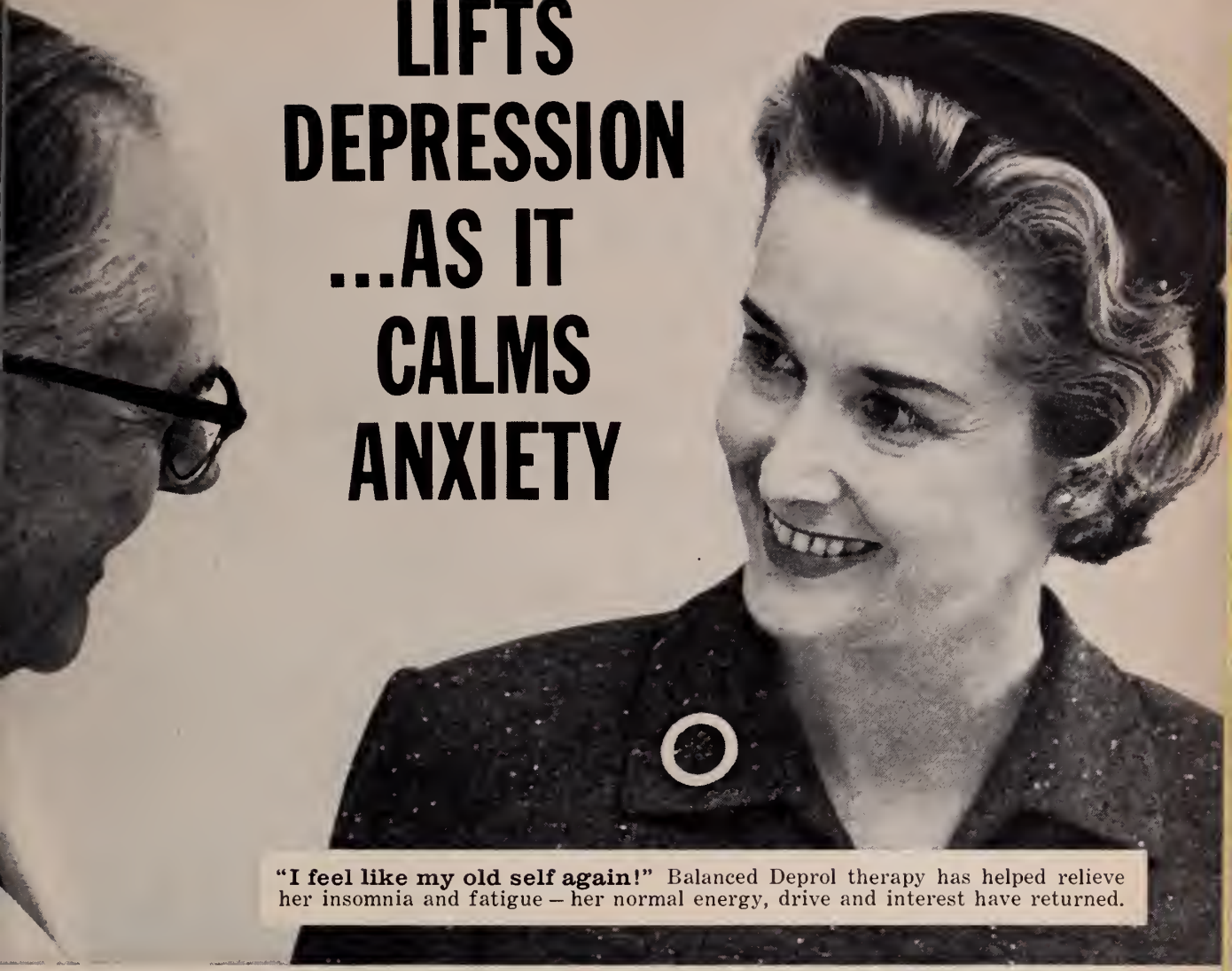
'EMPRAZIL'®

TABLETS



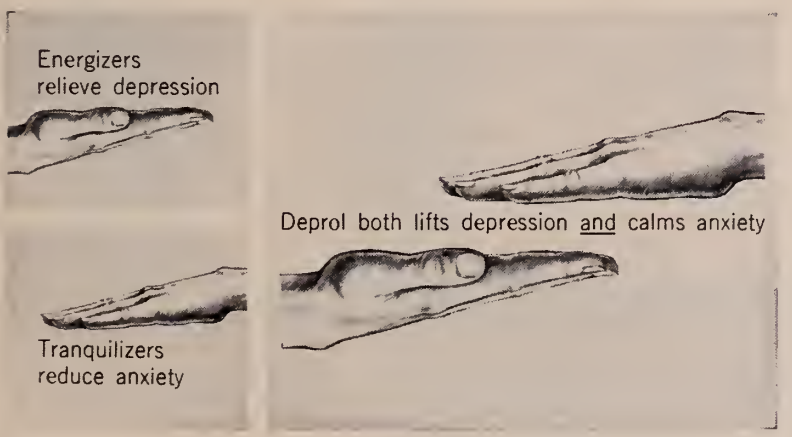
BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N.Y.

LIFTS DEPRESSION ...AS IT CALMS ANXIETY



"I feel like my old self again!" Balanced Deprol therapy has helped relieve her insomnia and fatigue – her normal energy, drive and interest have returned.

Brightens mood...relaxes tension



Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets.

Write for literature and samples.

▲Deprol®

WALLACE LABORATORIES
Cranbury, N.J.

CD-7393

New--from *Mayrand*

D-CAL-NaF

BASIC SUPPLEMENT *plus* FLUORIDE



Here is a phosphorus-free CALCIUM for immediate conversion and rapid assimilation; non-irritating, non-constipating IRON; and **only** those other nutrients needed to meet increased demands during pregnancy—Vitamins D, C and B-6.

Since tooth buds begin to form about the 6th week of pre-natal life, here is FLUORIDE for the future caries control of both mother and child.

Here is D-CAL-NaF — a sensible, moderate-cost formulation. ABOUT FOUR BOTTLES WILL PROTECT MOTHER AND FETUS DURING FULL TERM.

Each tablet Contains:

IN OUTER COATING:
Calcium Carbonate ..... 750 mg.
(Supplies 300 mg. of elemental Calcium)

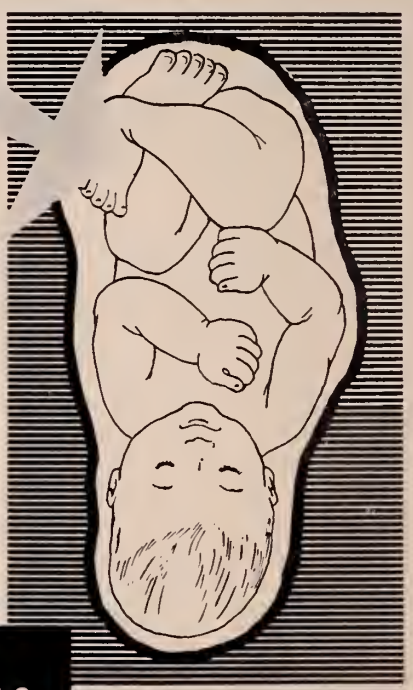
IN INNER CORE:
Iron (As Ferrous Fumarate) ..... 50 mg.
Vitamin D ..... 400 Units
Vitamin C ..... 75 mg.
Vitamin B-6 ..... 5 mg.
Sodium Fluoride ..... 1.1 mg.
(Supplies 0.5 mg. fluoride ion)

CONTRAINDICATED: Where natural or added fluoride in water exceeds 0.7 ppm. except on advice of physician.

SUPPLIED: BOTTLES OF 100 TABLETS —

References:

1. Feltman, R., and Kossel, G.: Prenatal Ingestion of Fluorides and their Transfer to the Fetus. Science 122:560-561 (Sept. 23) 1955.
2. Nutritional Reviews 17:267-268 (Sept.) 1959.
3. Council on Dental Therapeutics "Prescribing Supplements of Dietary Fluorides", J.A.D.A. 56:589-591, April 1958.
4. Hall, E. W., "The Family Doctor and Preventive Dentistry", G.P., XXII:6, December 1960. pp 109-111.



Mayrand, Inc. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA

SAMPLES AND COMPLETE DOSAGE INFORMATION ON REQUEST.

asthma attack averted
. . . in minutes



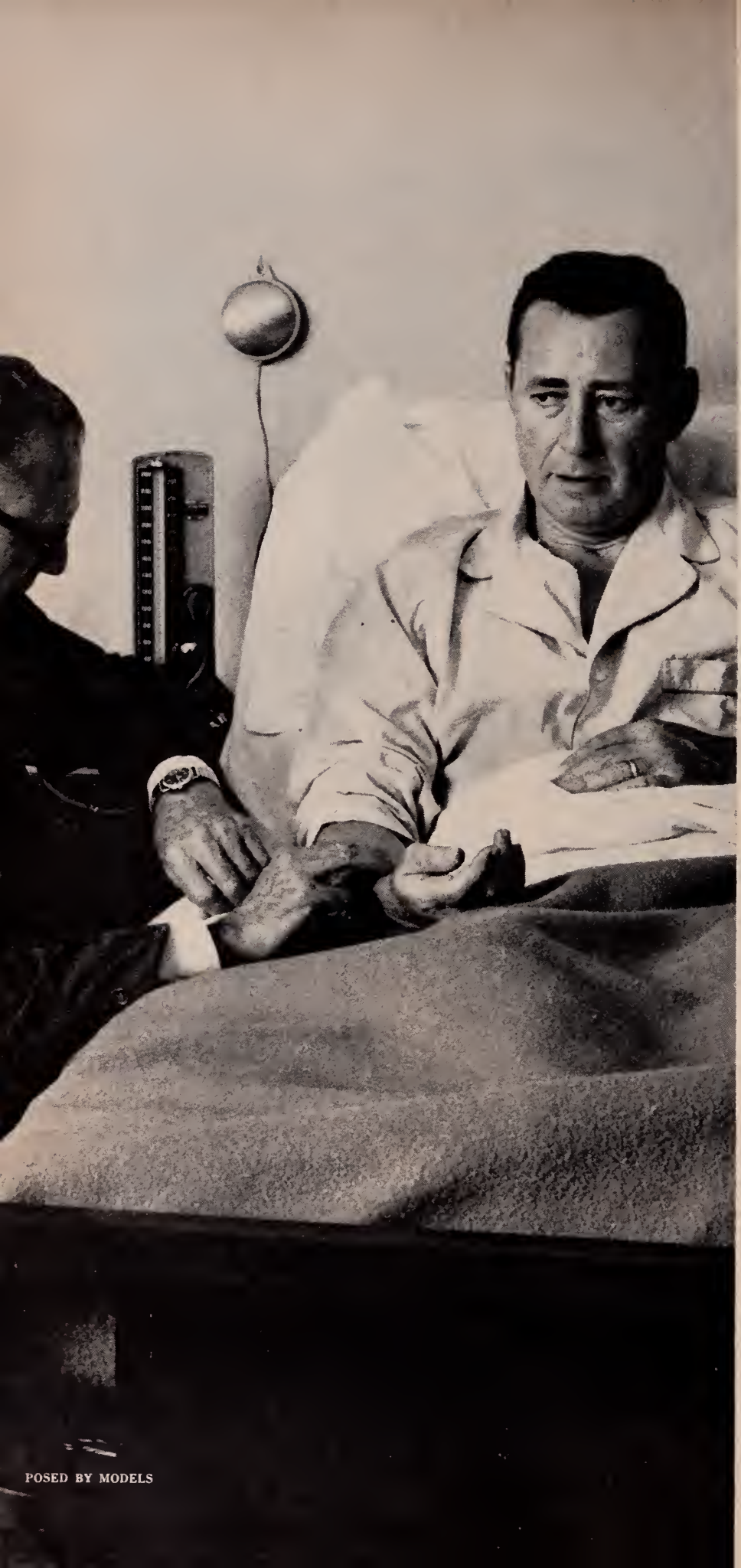
patient protected
. . . for hours



Nephenalin®
(the dual-action anti-asthmatic tablet)

. . . works with nebulizer speed—provides four-hour protection

One NEPHENALIN tablet provides: *air in a hurry*—through sublingual isoproterenol HCl, 10 mg. *air for hours*—through theophylline, 2 gr.; ephedrine, ⅜ gr.; phenobarbital, ⅛ gr.
Dosage: Hold one NEPHENALIN tablet under the tongue for five minutes to abort the asthmatic attack promptly. Then swallow the tablet core for four full hours' protection against further attack. Only one tablet should be taken every four hours. No more than five tablets in 24 hours.
Supplied: Bottles of 50 tablets. For children: NEPHENALIN Pediatric, bottles of 50 tablets.
Caution: Do not administer NEPHENALIN with epinephrine. The two medications may be alternated at 4-hour intervals. NEPHENALIN should be administered with caution to patients with hyperthyroidism, acute coronary disease, cardiac asthma, limited cardiac reserve, acute myocardial damage, and to those hypersensitive to sympathomimetic amines. Phenobarbital may be habit forming. THOS. LEEMING & CO., INC., New York 17, N.Y.



POSED BY MODELS

IO



all things considered

in bronchitis—Considering the pattern of mixed bacteria, localized or diffuse involvement, potential underlying disease, and the need to allay symptoms and ease respiratory/cardiac function...physicians often include DECLOMYCIN demethylchlortetracycline in the course of therapy.

DECLOMYCIN produces activity levels higher than those of other tetracyclines...at lower dosage...and maintains them during the entire course of treatment without significant fluctuation.

This activity is prolonged 24 to 48 hours after the last dose, helping to protect against relapse.

Over the wide range of everyday infections—respiratory, urinary and most others—in the young and the aged—the acutely or chronically afflicted—DECLOMYCIN provides the "extra dimension" in broad spectrum control.

the decision is for

For *adults: Capsules*, 150 mg. and 75 mg. For *children:* cherry-flavored *Pediatric Drops*, 60 mg./cc., and cherry-flavored *Syrup*, 75 mg./5 cc. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

ECLOMYCIN®

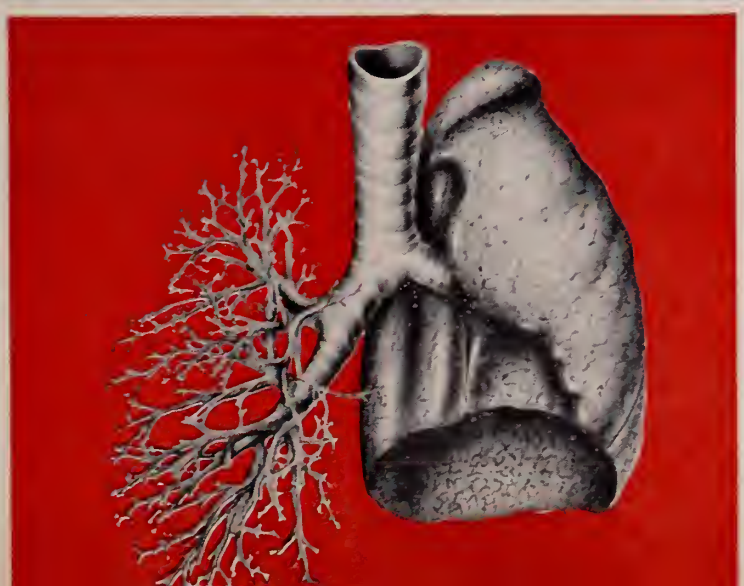
DEMETHYLCHLORTETRACYCLINE LEDERLE

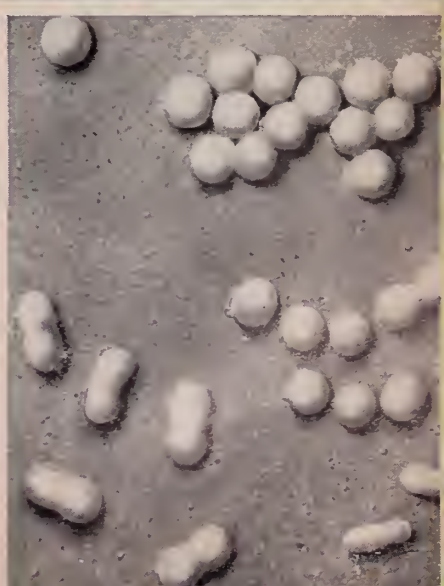
LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY • Pearl River, N. Y.

Lederle











Cleanliness is more than a virtue at Lilly; it is a routine. It starts with vacuum-cleaning the drums filled with raw material even before they enter a Lilly warehouse. It is the first of an endless list of rules that have become a way of life for Lilly employees. Although meticulous housekeeping has little to do with technical know-how, it adds immeasurably to the quality of the finished product.

Eli Lilly and Company · Indianapolis 6, Indiana, U.S.A.

Lilly

390016

Journal of the Tennessee State Medical Association

OWNED AND PUBLISHED BY THE ASSOCIATION

Volume 56 FEBRUARY, 1963 Number 2

Symposium on Cancer Chemotherapy*

INTRODUCTORY REMARKS

RICHARD C. SEXTON, JR., M.D., *Moderator*, Knoxville, Tenn.

As a palliative mode of treatment there is clearly a place for cancerocidal chemotherapy. An immense amount of attention is given to study of such agents. Time only can determine if a curative agent may be found. Experimental evidence points to such possibilities in viral induced malignancies.

While surgical and radiotherapeutic approaches to cancer represent the only hope of cure, it has become painfully evident in recent years that many patients are beyond cure by these approaches by the time they present themselves with their disease. Indeed, it has been shown that only about one-third of patients with malignant neoplastic disorders at a given time are alive five years later. Many of these patients have inapparent or unestablished disease at the time the grossly apparent disease is believed curable by resectional or radiotherapeutic technics. Thus, it is apparent that many patients exist who are in need of palliative therapy. These patients and patients with hematologic malignancies are the patients who may benefit from chemotherapy.

Fortunately the list of available cancer chemotherapeutic agents is rapidly increasing and certain specific indications for their use are emerging. Therefore, it becomes incumbent on the therapeutist to be discriminate in his choice of agents and to utilize the most logical combination of agents, if there is reason to believe that a combination of agents is indicated, and to use the available agents in sequence or in combination with other modalities of treatment in such a way as to provide the most effective palliation. I would like to emphasize that there are no known cures of human cancer with chemotherapeutic agents. It is for this reason that one should not submit a patient for cancer chemotherapy until one is reasonably certain that curative surgical or radiation therapy cannot be applied.

The search for more effective chemotherapeutic agents is proceeding on several fronts. Literally thousands of synthetic chemicals, plant extracts, antibiotic culture filtrates, and steroid agents are tested annually for their antitumor activity. Attempts are being made to pinpoint the metabolic aberrances which characterize a given tumor and to predicate treatment on the metabolic behavior of the tumor. I am sure that Dr. Rogers will have more to say about this facet of the problem.

Congressional appropriations for cancer research are increasing faster than the capabilities of the research facilities which utilize these appropriations. It is hoped that out of this immense human effort basic information regarding cellular pathology, cellular physiology, and tumorigenesis will come which will permit a more effective basic approach to the problems presented by cancer. In the meantime we must treat patients with available agents whose clinical usefulness has been proven. It is our purpose this morning to discuss with you currently available agents and techniques of applying them to the patient.

---

*Presented at the meeting of the Tennessee State Medical Association, April 9, 1962, Memphis, Tenn.

The paper, a part of this Symposium, by Dr. E. Converse Peirce, II, Knoxville, entitled "Extra corporeal Perfusion Techniques in Cancer Chemotherapy," appeared in the J. Tennessee M.A. 55: 349 (Sept.) 1962.

I should like to emphasize the following points at the outset:

(1) Be sure a malignant disorder exists.

(2) Be sure the patient is not a candidate for potential curative surgical or radiotherapy, and that chemotherapy is the best palliative approach.

(3) Do not confuse an intrinsic tendency to slow progression on the part of the tumor with therapeutic response to chemical or other therapeutic agents.

(4) The use of chemical agents in the treatment of cancer is usually limited by the patient rather than the tumor. These agents are double-edged swords.

(5) Cancer chemotherapy should be judiciously integrated into the total care program of the patient.

(6) If possible, use one agent at a time and allow time for assessment of therapeutic response between different agents.

(7) Present knowledge suggests that cancer is probably a group of related disorders rather than a single etiologic entity. For this reason, no single curative or universally inhibiting agent is apt to be found.

(8) In general, the following tumors are not responsive to chemotherapy: (a) brain tumors; (b) tumors of connective tissue origin; (c) epidermoid carcinoma of the head and neck; and (d) carcinomas of the liver and kidneys, and malignant melanomas.

SELECTION METHODS AND CANCER CHEMOTHERAPY AGENTS

STANFIELD ROGERS, M.D.,* Knoxville, Tenn.

The armamentarium of the cancer chemotherapist is rapidly increasing both in number and diversity. They range from materials in extracts derived from microorganisms or plants, the means of action of which are often wholly unknown and their effectiveness judged empirically to specially tailored highly specific metabolic antagonists whose action is being directed toward the blocking of a specific, often critical, metabolic step. It is these latter, because of their specificity, which are gradually leading us to a more rational approach to cancer chemotherapy.

In general, with nonsurgical treatment of neoplasia, whether the means be ionizing irradiation, the use of a biologically derived mitotic poison such as colchicine, or highly specific metabolic antagonists such as 6-mercaptopurine, the basis of the effectiveness in doses sublethal for the animal as a whole rests almost, if not wholly, on the fact that the tumors in question are growing faster than their normal counterparts and other critical cell types in the body reached by the agent. Unfortunately the cells of our gastrointestinal epithelium, lymph nodes and blood forming elements grow at sufficiently high rates to greatly limit the usefulness of these substances. The principal means of circumventing this problem has been the use of isolation of the blood supply of the area and perfusion. Obviously this is not often feasible. A means which has not yet been tested clinically, and which might well prove useful, particularly when the x-ray is the agent used, is to control the environment of the individual sufficiently that an accurate prediction can be made of the time of day the individual cells in general are undergoing the least cell division. The diurnal variation of cell division has long been known to undergo relatively constant cycles and, though very pronounced in the normal cell population, the neoplastic cell populations show little diurnal variation. Pertinent to this is the recent finding that the LD-50 of x-irradiation is critically related to whether the animal in question is growing rapidly or slowly at the time of irradiation.[1] Though similar knowledge of the rate of cell division at a given time in the individual might also prove of considerable usefulness with the short acting mitotic poisons, such as nitrogen mustard, it seems unlikely to be of significant usefulness with agents in the class of the metabolic antagonists as they are often around for long periods following a single dose.

It has become quite clear that for really successful chemotherapy, we must know much more of the metabolism of the individual neoplasm. With experimental tu-

*From the University of Tennessee Memorial Research Center, Knoxville, Tenn.

mors in animals it is quite evident that though two neoplasms may look microscopically alike and grow at like rates, their individual metabolism may vary greatly, one responding well to one agent and the other not at all.[2] Certain *in vitro* methods have been worked out which may prove useful in solving the problem of selecting which specific metabolic antagonist would have the greatest effect on an individual tumor.[3] This method is simply to incubate fresh live tumor fragments in a synthetic media containing most of the known essential nutrients including amino acids and nucleic acid precursors and, after a period of incubation, study the media and find which of these substances were particularly used and select the specific antagonist on this basis. An improvement would be to then add the antagonist to the *in vitro* system to find whether it actually was taken up and what influence it has prior to clinical test. Using such a system, one would, of course, hope for the utilization of atypical precursor material—by atypical I mean not ordinarily used by cells of that species—for an antagonist to such a substance would be expected to only influence the tumor cells in question. An atypical metabolic pathway of this sort could arise through mutation and deletion of an enzyme in an important pathway or could be the result of new genetic information brought into the cells by a virus be it either the virus causally related to the individual tumor or a passenger virus.[4,5] The virus induced neoplasm we know most about in these metabolic relationships, the Shope rabbit papilloma, has certain particular interests to our chemotherapeutic directions of the future. The metabolism of the individual tumors in contrast to the tar-induced neoplasms of the skin is identical within the range of error for the test system. This thus raises the hope that many of our tumors of now unknown origin will turn out to be of viral cause, for one would expect that they would respond uniformly to the same chemotherapeutic agent, and once diagnosed could be specifically and effectively treated. This is, of course, in addition to the important chance of preventing the tumor in the first place through immunization procedures.

The metabolic and chemotherapeutic studies with the Shope papilloma have also raised another interesting therapeutic possibility. The Shope virus in inducing the tumor is bringing in information on its own "chromosomal" complement for the synthesis of an enzyme new to rabbit epithelium, an arginase.[6] This arginase is entirely different in its physiochemical attributes, activation requirements, etc., from other known arginases. It should then be possible to block this enzyme specifically without curtailing in anyway the activity of other arginases in the body. These studies are just beginning and the specific antagonist has not yet been found. Progress has been made, however, in another direction. It has been possible to greatly reduce the growth rate of the tumors by supplying large amounts of supplemental arginine parenterally.[7] This was done in an effort to bypass the enzyme, it being thought that if this enzyme was involved in one of the critical metabolic differences accounting for the cells being neoplastic rather than normal, that it should be possible to make them act more normally by bypassing the defect whether or not the information responsible for the continuing neoplastic state was still in the cells.

It seems possible, then, that in the future as we learn more of the metabolic patterns of normal cells and neoplastic cells from individual tumors, and that we may be able to effectively treat cancer by bypassing the defect whether it be the result of a deletion or of an addition of genetic information in the cell, but through the use of normal nutrients rather than toxic metabolic antagonists or other cellular poisons.

References

1. Rogers, S.: LD-50 and Mitotic Rate of Animals at Time of Exposure to X-irradiation, Proc. Soc. Exp. Biol. Med. 105:240, 1960.

2. Brockman, R. W., Bennett, Jr. L. L., Simpson, Marguerite, S., Wilson, Ava R., Thomson, J. R. and Skipper, Howard E.: A Mechanism of Resistance to 8-Azaguanine. II. Studies with Experimental Neoplasms, Cancer Research, 19: 1959.

3. Rogers, S.: Induction of Arginase in Rabbit Epithelium by the Shope Rabbit Papilloma Virus, Nature 183:1815, 1959.

4. Potter, Van R.: Enzyme Studies on the Deletion Hypothesis of Carcinogenesis. The Molecular

Basis of Neoplasia, (M. D. Anderson Symposium on Fundamental Cancer Research, 1961, U. of Texas Press).

5. Rogers, S.: Comparative Carcinogenesis, Arch. Path. 70:661, 1960.

6. Rogers, S.: Certain Relationships Between the Shope Virus Induced Arginase, the Virus and the Tumor Cells. The Molecular Basis of Neoplasia, (M. D. Anderson Symposium on Fundamental Cancer Research, 1961, U. of Texas Press).

7. Rogers, S.: An Approach to the Selective Chemotherapy of the Shope Virus Induced Rabbit Papillomas, Proc. Amer. Assoc. Cancer Res., 1962. (Abstract.)

USEFUL CURRENT CANCER CHEMOTHERAPEUTIC AGENTS*

DAVID A. WHITE, M.D., Oak Ridge, Tenn.

Although some 50,000 chemical compounds are screened each year in the search for new and better cancer chemotherapeutic compounds, only a handful are found to warrant extensive clinical investigation. And of these only a few are found to be comparable in effectiveness and degree of toxicity with the chemotherapeutic agents in current use. While the chemotherapist welcomes the opportunity to use these new compounds, he remains largely dependent on the agents that are now available.

Table 1 lists some of the more useful compounds. Only the alkylating agents, the antimetabolites, and a small miscellaneous group of cytotoxic drugs will be considered with no attempt to cover therapy with hormonal agents, adrenocortical steroids, or antibiotics, such as actinomycin D.

Table 1

I. Alkylating agents
   1. Nitrogen mustard (HN_2, Mustargen)
   2. Triethylene melamine (TEM)
   3. Triethylene thiophosphoramide (Thio-TEPA)
   4. Cyclophosphoramide (Cytoxan)
   5. Busulfan (Myleran)
   6. Chlorambucil (Leukeran)

II. Antimetabolites
   1. Aminopterin
   2. Amethopterin (Methotrexate)
   3. 6-mercaptopurine (6-MP, Purinethol)
   4. 5-fluorouracil (5-FU)

III. Miscellaneous cytotoxic compounds
   1. Ethyl carbamate (Urethane)
   2. Colchicine

The best known cancer chemotherapeutic drugs are the alkylating agents, which react with proteins by the substitution of methyl or ethyl groups for hydroxyl radicals, thus interfering with nucleoprotein metabolism. Like the other chemical cytotoxic agents they are tissue poisons that can damage both normal and malignant cells. The first alkylating agent to be used, and the drug largely responsible for much of the interest in cancer chemotherapy, is nitrogen mustard, a derivative of mustard gas. Its proprietary name is Mustargen and it is often referred to as HN_2. Nitrogen mustard has been used for a wide variety of neoplasms, including bronchogenic carcinoma. It has also been used for intracavitary injection for the control of malignant serous effusions with results similar to those obtained with radioactive colloidal gold.[1] However, the drug has been most useful in the treatment of lymphomas, particularly Hodgkin's disease. The usual dosage is 0.4 mg./kg. intravenously, which may be given in a single dose or fractionated doses. I prefer to give the compound in two or three fractionated doses. Since nitrogen mustard is a vesicant, it is injected into the tubing of an intravenous drip of physiologic saline. It is desirable to give the patient a rapidly acting barbiturate and an antinauseant drug, such as promazine, approximately 30 minutes after the injection and to repeat the antinauseant drug as needed for nausea and vomiting. These gastrointestinal symptoms may be minimized by omitting the nearest meal or by administering the drug shortly before the patient's bedtime.

Triethylene melamine, better known as TEM, has properties similar to nitrogen mustard. It is used primarily in the treatment of lymphomas and chronic lymphocytic leukemia. I have had less success with the drug in Hodgkin's disease than in lymphosarcoma and chronic lymphocytic leukemia. Before chlorambucil became available, TEM was used extensively in the treatment of chronic lymphocytic leukemia. It is given orally, usually in the dose of

*From the Medical Division, Oak Ridge Institute of Nuclear Studies, Oak Ridge, Tenn. (Under contract with the United States Atomic Energy Commission.)

2.5 mg. or 5 mg. once or twice a week, and should be taken at least two hours before breakfast with a carbonated beverage, preferably soda water, or with sodium bicarbonate. The duration of therapy is dependent on the patient's response and the hematologic picture.

Triethylene thiophosphoramide (Thio-TEPA) has been used for a wide variety of neoplastic diseases, similar to nitrogen mustard. Like nitrogen mustard it has been useful in controlling malignant serous effusions.[1] It appears to be particularly valuable in the treatment of carcinoma of the ovary no longer amenable to surgery or radiation therapy. It also has been recommended for carcinoma of the breast and melanomas. In carcinoma of the breast the drug appears to be most effective in premenopausal patients. Its use is often combined with castration and androgen therapy. Thio-TEPA is usually given in a course of five daily intravenous doses of 0.2 mg./kg.

I have found cyclophosphoramide (Cytoxan) particularly useful in the treatment of undifferentiated tumors. Cytoxan is given with an initial intravenous priming dose of 200 mg. daily for 10 days. The patient is then placed on oral maintenance therapy, usually 50 mg. daily or every other day. The drug was developed in Germany and is used extensively in that country. In a personal communication, Dr. W. Gerhartz of Berlin recommended combined Cytoxan and prednisone therapy for multiple myeloma. We have treated 2 patients with this regimen. One received no apparent benefit while the other appears to be doing much better clinically than he had earlier on a prolonged course of urethane.

Busulfan or Myleran is the alkylating agent with the most limited application. It is considered to be the drug of choice for chronic myelocytic leukemia. The initial daily dosage is 4 to 12 mg. given orally. The dose is reduced as the patient shows hematologic and clinical response. Effective maintenance therapy may be as little as 1 mg. two times a week.

Chlorambucil (Leukeran) is used primarily in the treatment of lymphomas and chronic lymphocytic leukemia. Like TEM, in my experience, the drug has proved more valuable in lymphosarcoma and in chronic lymphocytic leukemia than in Hodgkin's disease. The drug is widely used in the treatment of chronic lymphocytic leukemia with results similar to those obtained with radioactive phosphorus. The initial daily dosage of chlorambucil is 4 to 10 mg. given orally. After clinical and hematologic response, the patient's maintenance dosage may be as low as 2 mg. daily or every other day.

Of the antimetabolites, the folic acid and purine antagonists are used primarily in the treatment of acute leukemia. In general they are more effective in children with acute leukemia than in adults. These drugs usually produce longer remissions than obtained with the use of adrenocortical steroids alone. The folic acid antagonists interfere with the synthesis of folic acid to folinic acid. Aminopterin, the first of the folic acid antagonists, has been virtually replaced by the less toxic amethopterin or Methotrexate.

Methotrexate is considered by many to be the drug of choice for acute lymphoblastic leukemia. It is given customarily in the oral dosage of 2.5 mg. given daily; at times it is desirable to use a lower dosage of 1.25 mg. daily. Usually for a relatively short period a dosage of 5.0 mg. daily may be used. Nausea and vomiting produced by the drug may be largely controlled by giving it in divided doses or with meals. It has been administered intrathecally for the control of manifestations of acute leukemia in the central nervous system. Methotrexate has produced some dramatic remissions in women with choriocarcinoma when given in courses with large intravenous or intramuscular doses.[2] In short courses with large oral doses, usually combined with another cytotoxic agent as TEM, Methotrexate has been used in the treatment of a variety of neoplasms, including cancer of the breast.[3]

Methotrexate is a very toxic agent. I have seen one fatality as a result of its being administered enthusiastically by a physician who was unfamiliar with the drug or its toxic effects. Fortunately, a frequent early sign of toxicity is ulceration of the buccal mucosa. Such ulceration, however, could be easily overlooked unless it is realized

that the buccal mucosa may have the appearance of being lightly shaved off over an extensive area.

6-mercaptopurine, also known as 6-MP and Purinethol, interferes with purine metabolism. It is considered to be the drug of choice for acute leukemia in adults. In some clinics it is given initially to all children with acute leukemia in preference to the more toxic Methotrexate. It may also be used in the treatment of chronic granulocytic leukemia. I consider 6-MP to be the drug of choice in acute myeloblastic leukemia and in selected cases of chronic myelocytic leukemia. In the latter disease, I prefer 6-MP to Myleran when the marrow shows less maturation than in a "good chronic" case but also appears too differentiated to justify the diagnosis of an acute or subacute myeloblastic leukemia. The customary daily dose of 6-MP is 2.5 mg./kg. given orally, but it is not unusual to give doses as large as 5.0 mg./kg. As the patient responds the dose may be reduced, at times as low as 50 mg. daily in an adult and 25 mg. daily in a young child.

The newest of the antimetabolites is 5-fluorouracil or 5-FU. This compound is a fluorinated pyrimidine that interferes with the formation of thymine from uracil and has been used in the treatment of a variety of tumors. Crile has reported its use in over 200 cases of different neoplasms.[4] He considers 5-FU to be the chemotherapeutic agent of choice. Unlike some of the alkylating agents, he has found that the drug can be given with benefit repeatedly to the same patient. 5-fluorouracil interferes particularly with the metabolism of colonic cells and can cause destructive lesions in the rectal mucosa. For this reason it appears to be especially effective in the treatment of carcinoma of the colon. For the same reason diarrhea is an important toxic effect. There is some evidence that 5-FU combined with local radiation therapy will give an earlier response than might be expected from either agent alone. 5-fluorouracil is still an investigational drug.* It is customary to give 15 mg. per kg. intravenously daily for 5 days and then 7.5 mg. per kg. intravenously every other day for four doses.

*Hoffaman LaRoche has recently released 5-fluorouracil as Fluorouracil.

Under the miscellaneous group of cytotoxic agents, I should like to consider urethane and colchicine. Ethyl carbamate or urethane remains the drug of choice for multiple myeloma. It is customarily given in the oral dose of 2 to 4 Gm. daily in divided doses, as tolerated. Often the dosage has to be reduced or even stopped temporarily if the patient develops gastrointestinal symptoms or has thrombocytopenia or marked leukopenia. Most patients taking Urethane learn to reduce their dosage for a few days if they develop nausea, vomiting, or anorexia. I believe that urethane is of significant benefit in at least 30% of the cases of multiple myeloma, and consider it worthwhile therapy even when the patient can tolerate no more than 1 Gm. daily. Before Myleran became available, Urethane was used successfully in the treatment of chronic myelocytic leukemia. I prefer to prescribe Urethane in the form of an elixir, and order it in an appropriate vehicle, as simple elixir, so that 5 ml. is equivalent to 1 Gm. of Urethane.

Colchicine has long been known to have an adverse effect on tumors. Its well-known toxic manifestations, however, precluded its use orally in the treatment of cancer. When administered intravenously, there are few if any side effects from daily doses up to 3 mg. (1/20 gr.). This drug may be given for 10 to 14 days. It is used mainly in the treatment of Hodgkin's disease. Although it has less effect on enlarged nodes than most cytotoxic agents, it can control systemic symptoms, particularly pruritis. While its effect has been relatively short, in my experience, it is useful at times between courses of radiation therapy, for it usually produces less marrow depression than most chemotherapeutic agents. I have seen a good clinical response to intravenous colchicine in a patient with lymphosarcoma who did not tolerate well several of the alkylating agents.

There is no way to predict the ultimate role of cytotoxic chemotherapeutic agents in the treatment of cancer. Perhaps they will become as outdated as the use of sulfanilamide in the treatment of lobar pneumonia. On the other hand cancer chemotherapy may have increasing importance. In any case it appears that we will

be using chemotherapeutic drugs for some time to come. If we become skillful in the use of the drugs currently available, we shall be able to use more effectively newer and better compounds as they become available.

References

1. Clark, R. Lee, Jr.: In Cancer Chemotherapy, Anderson Hospital and Tumor Institute. Houston, Texas. Springfield, Ill. Charles C. Thomas, 1961.

2. Hertz, R., Bergenstal, D. M., Lipsett, M. B., Price, E. B., and Hilbish, T. F.: Chemotherapy of Choriocarcinoma and Related Trophoblastic Tumors in Women, JAMA 168:845, 1958.

3. Hurley, J. D., Ellison, E. H., Riesch, J., and Schulte, W.: Chemotherapy of Solid Carcinoma, JAMA 174:1696, 1960.

4. Crile, G.: Chemotherapy of Cancer, Postgrad. Med. 28:242, 1960.

CONCLUDING REMARKS

RICHARD C. SEXTON, JR., M.D., Knoxville, Tenn.

Most of the currently available and useful cancer chemotherapeutic agents have been discussed. Selection of chemotherapeutic agents has been discussed by Dr. Rogers. The utilization of extracorporal perfusion techniques has been covered by Dr. Peirce.* Dr. White has discussed currently available agents.

The following points are re-emphasized:

(1) The use of these agents should be monitored with frequent white blood cell and differential counts, and by thrombocyte determinations, as well as careful clinical scrutiny.

(2) These agents are palliative, not curative. Curative modalities should be applied as long as there is reasonable hope of cure.

(3) Judicious use of these agents affords definite palliative benefits in carefully chosen patients.

(4) It is often necessary to induce and maintain some degree of leukopenia.

(5) The use of these agents is quite analogous to the use of digitalis. A loading dose is necessary; in many situations a maintenance dose is desirable and necessary; and, like digitalis, the dosage must be individualized (toxic manifestations can be overwhelming).

(6) The total care of the patient should not be neglected.

*See footnote pp 39.

Deliberate Digitalis Intoxication—A Comparison of the Toxic Effects of Four Glycoside Preparations.: Church G., Schamroth, L., Schwartz, Neil L., and Marriott, Henry J. L. Ann. Int. Med. 57:946, 1962.

The authors note the diversity of opinion recorded in the medical literature regarding the comparative toxicity of various digitalis glycosides and discuss the difficulty of controlling the multiplicity of variables inherent in studies of this problem. After reviewing the literature briefly with these in mind, they conclude that "Previous reports based on observations in different patients intoxicated to an ill-defined degree with different drugs, especially when evaluated in retrospect, can hardly be taken seriously; . . . .".

Many of these variables are eliminated in their study since digitalis intoxication is pronounced intentionally, using different glycosides consecutively in the same patient under close observation according to a predetermined plan. 85 instances of intoxication produced in 30 patients, using digoxin, gitalin, and digitoxin orally and, in 6 patients, intravenous acetylstrophanthidin, are analyzed. In some patients intoxication was produced consecutively with different preparations and in others with the same preparation.

No glycoside produced a consistent symptom pattern either in the same or different patients, nor did patients consistently show the same symptom pattern in consecutive periods of intoxication whether produced by the same or different glycosides.

An equally interesting observation was the almost equal duration of toxic symptoms produced by the three oral preparations, the average being 48 hours with digoxin and digitoxin and 60 hours with gitalin.

The authors conclude: (1) that there is no acceptable evidence that these glycosides produce characteristically specific toxicity patterns, and (2) that the duration of comparable degrees of toxicity produced by digoxin and digitoxin does not differ significantly. (Abstracted for the Middle Tennesse Heart Association by C. C. Woodcock, M.D., Nashville.)

CLINICAL NOTES FROM THE TENNESSEE HEART ASSOCIATION

WORK AND THE HEART

J. E. ACKER, JR., M.D., Knoxville, Tenn.

Concepts regarding the relationship of work and the heart over a period of years have gradually changed. The term "atheletes heart" implied acquired cardiomegaly and subsequent diminished myocardial function in the individual who had subjected himself to strenuous competitive athletics. Formerly, it was the practice that once a diagnosis of essential hypertension, arteriosclerotic heart disease or valvular heart disease was made, the worker was markedly restricted in his activities, and in instances, refused any type of work:—hence, the concept that work or physical activity was "bad for the heart." This belief has resulted in economic loss to the family unit, emotional trauma to the worker involved, dependence of the family upon some other means of income, and in many instances economic loss, also, to the employer who must replace the experienced worker's skills.

As scientific knowledge regarding the relationship of the heart to physical activity and work has increased, it has become evident that these are not harmful and, in fact, may be helpful. Therefore return of the cardiac to gainful employment has been increasingly accepted by physicians, workers and employers. Dimond[1] in a study of 202 railway operating employees returning to full time work after their initial myocardial infarction cites a five year survival rate of 83% and a ten year survival rate of 57%. The prognosis in this group of men returning to full time activity after the first myocardial infarction was better than that reported for those surviving without consideration for their functional recovery.

Experiences in Cardiac Work Evaluation Units[2] throughout the country have indicated that 60 to 85% of cardiac patients seen in these units have been able to return to employment under the same or modified conditions. The factors influencing employment have been age, education, vocational training, degree of work skill, time interval off before re-employment, motivation for work, emotional factors, and willingness of employers to hire or re-hire the cardiac worker.

Once it is determined that a worker can return to his old job or a modified one, experience has shown that he can safely perform his duties. Greer[3], in a recent study of patients with cardiac disease employed at the Gillette Company in Boston, has found the cardiac worker to be actually a little above average in productivity, and his absenteeism only slightly more than the general average. In a study at the Cleveland Work Classification Unit[2] it was noted that cardiac patients have a low rate of absenteeism, are able to work safely, and to produce well in a wide variety of jobs. It was also found that their cardiac status often improved more than it deteriorated while they were working.

On the job studies as shown below indicate that the average individual's energy expenditure is not much greater than his resting level. Furthermore, on the job observations have shown that rarely does a worker perform more than a few minutes out of each hour at peak level of energy expenditure, most of his time being spent at a lower level of physical activity or in "rest periods." It is this wide margin of safety which permits the physician to send the average cardiac back to gainful employment with little risk.

ENERGY EXPENDITURE REQUIRED BY VARIOUS ACTIVITIES EXPRESSED IN CALORIES PER MINUTE[5]

Activities of daily living:	
Lying at ease	1.5
Sitting at ease	1.6
Washing and shaving	2.8
Dressing and undressing	3.5
Showering	4.2
Eating	1.4
Conversation	1.4
Bedside commode	3.6
Using bedpan	4.7
Walking 2 miles per hr.	3.2
Walking 3 miles per hr.	4.4
Climbing 1 flight stairs	2.5
Household activities:	
Hand sewing	1.3
Machine sewing	1.6
Sweeping floors	1.7
Cleaning windows	3.5
Scrubbing while kneeling	3.5
Ironing	4.2
Bed stripping and making	5.4
Recreational activities:	
Sitting and playing cards or musical instrument	2.0- 2.5
Dancing	5.5- 6.0

Gardening without digging	5.0
Gardening with digging	8.0
Bowling	4.4
Golf	5.0
Swimming (depending on type of stroke)	5.0-11.0
Job Activities:	
Clerical work	1.1- 1.8
Draftsman	1.8
Printing industry (printer to bookbinder)	2.2- 2.5
Shoe repairing	2.7
Radio mechanics	2.7
Drill press operator	2.0
Tool grinder	2.2
Machinist (engineering)	3.1
Lathe operator	2.7- 2.9
Pressing household utensils	3.8
Machine fitting	4.2
Toolroom work	3.9
Loading chemicals into mixer	6.0
Drilling coal	3.8- 9.5
Pushing wheel-barrow	5.0
Shoveling	7.5-10.5
Mowing wheat and barley	7.5
Steel industry (in mills)	10.0-11.0

Factors adversely effecting the employment of the cardiac patient are: (1) emotional problems, (2) reluctance of the employer to return the individual to activities, (3) reluctance of the physician to recommend re-employment, and (4) medicolegal problems. Gelfand[1], in an extensive study in Philadelphia, found that the passive dependent personality who reacted to his heart disease with overconcern, had a history of multiple transient short-term jobs, and a family life which was disorganized by his disease had a poor chance of returning to gainful employment. Contrasted to this were individuals with heart disease of equal severity who were predominately obsessive compulsive personalities with a more realistic manner toward their heart disease, a long steady work history with the same company, in a family which pulled together and made the necessary changes. This latter group of patients had an adaptative reaction to their heart disease due to their stable conscientious personality structure.

Many employers refuse to hire or rehire the cardiac worker due to recommendations of the physician to the contrary. In other instances insufficient enlightenment regarding the safety with which the cardiac if properly placed can work, or fear of economic loss through Workmen's Compensation or other medicolegal actions prevent employment.

Many physicians through their negative attitude toward the ability of the worker to return to his job have fostered underlying emotional problems. Others have steadfastly adhered to prior misconceptions regarding the safety with which the cardiac may work.

Fear of medicolegal action lessens chances of employment for cardiac workers. Initially, under Workmen's Compensation laws, payments were made only for heart disease occurring directly as a result of injury. Subsequently this was liberalized to include instances of myocardial infarction or other cardiac catastrophes occurring as a result of unusual effort. In recent years, with increasing frequency, payments have been made for heart attacks in workers who were on the job, even though they sustained their myocardial infarctions while carrying on regular daily activities which were not necessarily considered strenuous and certainly not considered unusual. Thus, Workmen's Compensation in many instances is looked upon by the courts as another means of Health and Accident Insurance, and does not carry out the original intent of the law.

Because of this the Legislature of the State of Tennessee in April, 1961, passed a Heart Waiver Law permitting a worker to waive his Workmen's Compensation rights in case of a subsequent cardiac catastrophe in order to return to his old job. This law has been in effect for such a short period of time that a relatively small number of workers have signed cardiac waivers and the law itself has not been tested in the courts. It is our belief that this law is not a realistic answer to the problem of the cardiac worker, but is a step in the right direction in that it recognizes the existence of such a problem.

In summary, it has been clearly demonstrated that the worker with heart disease if properly placed in his job can safely carry out gainful employment. Factors favorably and adversely influencing employment are noted. The physician plays a key role as the advisor to both worker and industry, and should seriously consider all factors when recommending re-employment or retirement of the individual with heart disease. Fortunately he is protected by a wide margin of safety and can return the vast majority of his patients to employment.

References

1. Dimond, George E.: Prognosis of Men Re-

turning to Work After First Myocardial Infarction, Circulation 23:881, 1961.

2. Bronstein, Lewis H., Clark, Richard J., Gelfand, David, and Hellerstein, Herman K.: Work and the Heart, Paul B. Hoeber, Inc. New York, 1959.

3. Greer, W. E. R.: Cardiovascular Rehabilitation. p. 41. (Edited by White, P. D. Rusk, H. A., Williams, B. and Lee, R. R.) New York, McGraw-Hill, 1957.

4. Gelfand, David: Factors Relating to Unsuccessful Vocational Adjustment of Cardiac Patients, Grant R. D. 281, Office of Vocational Rehabilitation and Heart Association of Southeastern Pennsylvania.

5. Warsaw, Leon, J.: The Heart in Industry, p 200, Paul B. Hoeber, Inc. New York, 1960.

Evaluation of Therapeutic Methods for Chronic Schizophrenia—L. Appleby: Arch Gen Psychiat 8:8, 1963.

Three different therapeutic approaches to chronic schizophrenia are compared. One approach derived from current psychoanalytic ego psychology and sociocultural information concerning social structure of mental hospitals. Of 53 patients selected for the study, 30 were randomly selected for an experimental ward and were divided into 3 treatment groups. Behavior ratings were taken before the treatment, at 4-month intervals, and 8 to 20 months following the treatment. The Lorri multi-dimensional scale for rating psychiatric patients was administered to experimental groups at 4-month intervals during the treatment. The findings indicated that the 3 experimental treatment groups had improved considerably at the end of the study, but did not differ much among themselves. The control group showed some gain, but on the whole significantly below that of the experimental groups. Results of the theoretical approach can only be considered tentative, but promising indications warrant further exploration in controlled setting, where definitive hypotheses can be studied together with isolation of specific variables.

The author considers the question about which there has been controversy—is there intrinsic cardiac disease which is attributable to dysfunction of the thyroid gland.

The P-R Interval in Thyroid Disease*

NAT H. SWANN, M.D.,* Chattanooga, Tenn.

The association of heart disease and diseases of the thyroid gland is widely known and extensively documented. However, a controversy remains concerning the recognition of a specific type of heart disease attributed solely to the effects of an overactive or an underactive thyroid gland.

The aim of this paper is to suggest the use of the electrocardiogram, specifically the P-R interval, in determining the existence of underlying intrinsic heart disease in cases of thyroid dysfunction.

Cardiac Changes in Myxedema

The cardiac and circulatory changes in hypothyroidism were described by Willius in 1925.[1] The P-R interval is frequently prolonged and partial heart block which improved after thyroid therapy has been reported by Fahr[2] and others. More common electrocardiographic changes are: (1) flattening or inversion of the T waves, with restoration of an upright T wave following thyroid therapy, and (2) low voltage of all complexes.

Dilatation and hypertrophy of the heart in myxedema has been reported, though the pathologic data concerning true cardiac hypertrophy without underlying independent cardiac disease is scant. Nonspecific degeneration and necrosis of muscle fibers have been described.[3] The question of whether

*From the Newell Hospital, Inc., Chattanooga, Tenn.

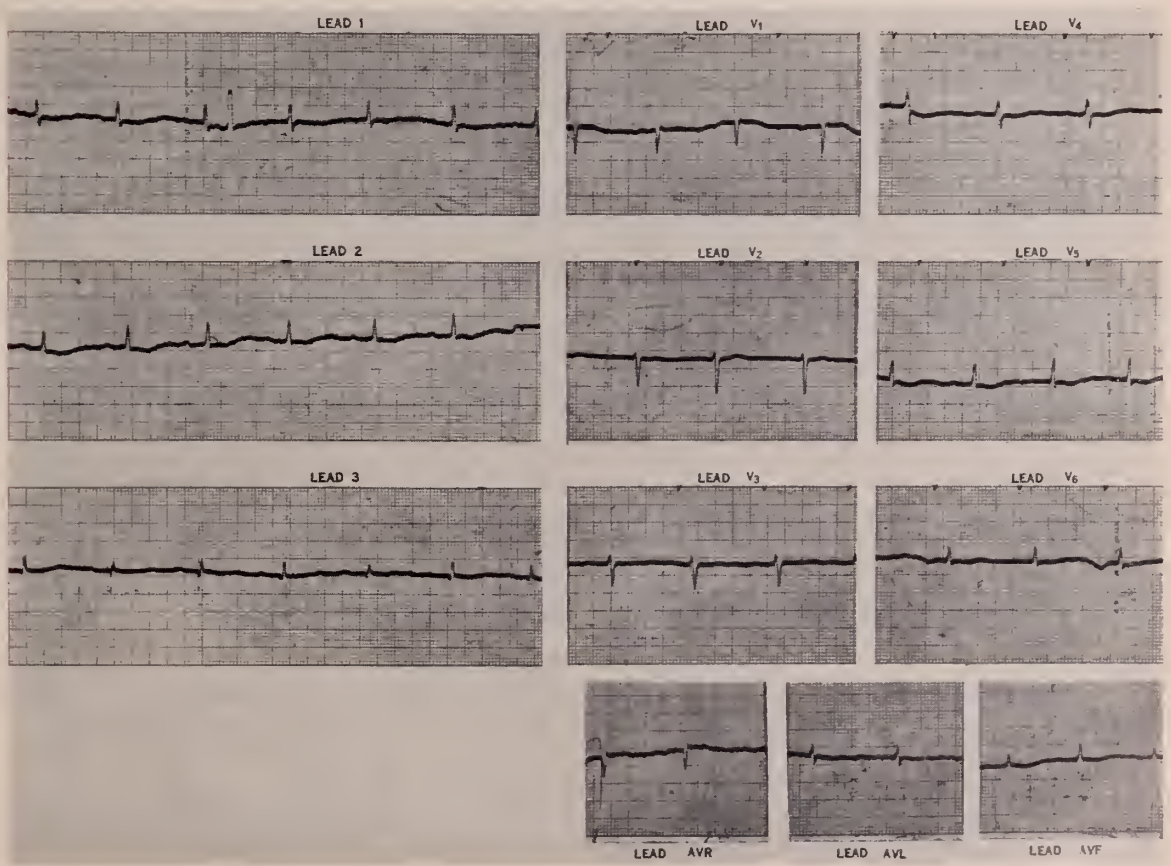


FIG. 1. The EKG. of a patient with myxedema before therapy showing prolonged P-R interval.

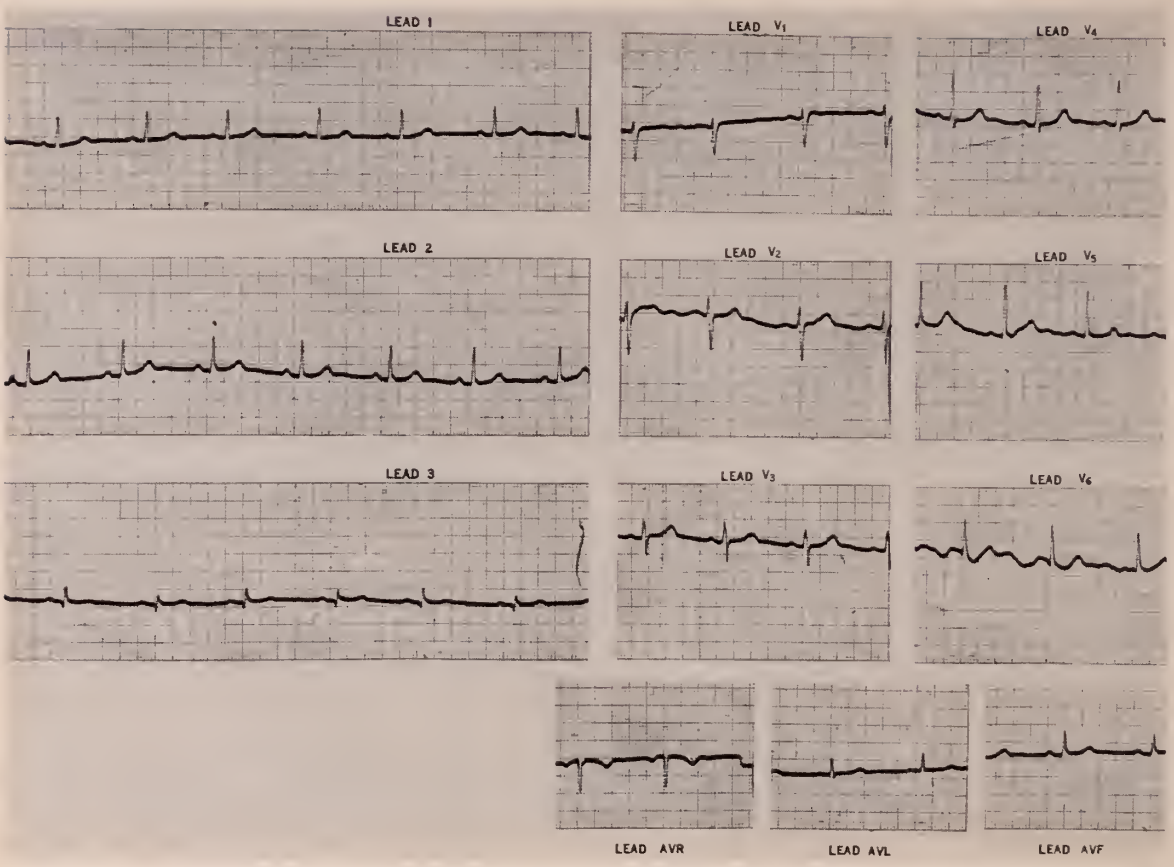


FIG. 2. The P-R interval has become normal following thyroid therapy.

myxedema predisposes to coronary atherosclerosis is yet unsettled. Heart block which improves after thyroid therapy has been attributed to myxedematous infiltration of the bundle of His.

The electrocardiogram of a 29 year old white woman with myxedema before and after thyroid therapy is illustrated (Figs. 1 and 2.) The protein bound iodine was 2.6 micrograms per 100 ml. before therapy and 4.6 micrograms after therapy. The P-R interval decreased from 0.28 seconds before treatment to 0.16 seconds after therapy.

Cardiac Changes with Hyperthyroidism

Ginsburg[4] has reviewed the circulatory changes occurring in thyrotoxicosis. There are many conflicting opinions concerning the existence of a pure form of thyrotoxic heart disease. Krumbhaar[5] reported prolongation of the P-R interval in toxic goiter in 1918. Blizzard and Rupp[6] have recently reported 5 cases of thyrotoxicosis with prolonged P-R intervals which returned to normal after treatment of the thyroid disorder. Schlesinger and Benchimol[7] reported 4 cases of thyrotoxic heart disease in which no other etiologic factor could be found that attributed to the cardiac involvement. These authors suggest that the pure form of thyrotoxic heart disease is reversible, provided that treatment is instituted before fibroblastic changes occur.

Discussion

The P-R interval may be prolonged in certain cases of both myxedema and thyrotoxicosis. It is obvious that the electrocardiogram cannot be used to make the diagnosis of either condition. However, given a patient with the classical signs and symptoms of either disease, the electrocardiogram may help in determining the presence of underlying heart disease due to other etiologic factors. When the P-R interval is prolonged in thyroid disease and does not revert to normal following thyroid therapy, it usually denotes heart block that is caused by independent heart disease.

Summary

Prolongation of the P-R interval has been

noted in both myxedema and thyrotoxicosis. A prolonged P-R interval remaining after adequate treatment for thyroid dysfunction usually indicates underlying intrinsic heart disease due to other etiologic factors.

The electrocardiogram is a valuable and too-little-used aid to diagnosis.

References

1. Willius, F. A. and Haines, S.: The Status of the Heart in Myxedema, Amer. Heart J. 1:67, 1925.

2. Fahr, G.: Myxedema Heart, J.A.M.A. 84:345, 1925.

3. Friedberg, C. K.: Diseases of the Heart. W. B. Saunders Co., 2nd ed., Philadelphia, 1958.

4. Ginsburg, A. M.: The Historical Development of the Present Conception of Cardiac Conditions in Exophthalmic Goiter. Ann. Int. Med. 5:505, 1931.

5. Krumbhaar, E. B.: Electrocardiographic Observations in Toxic Goiter, Am. J. M. Sc. 155:175, 1918.

6. Blizzard, J. J. and Rupp, J. J.: Prolongation of the P-R Interval as a Manifestation of Thyrotoxicosis, J.A.M.A. 173:1845, 1960.

7. Schlesinger, P. and Benchimol, A.: The Pure Form of Thyrotoxic Heart Disease, Amer. J. Cardiol. 2:391, 1958.

Cervical Carcinoma in Women Under 30 Years of Age: Delay in Diagnosis—A. W. Diddle and J. Watts: Amer J Obstet Gynec 84:745, 1962.

The delay between the onset of symptoms and the time of an accurate diagnosis was measured in 94 women under 30 years of age who had cervical carcinoma. The results were compared with those in women 30 years of age and older who also had the disease. The average duration for all ages ranged from 7.4 to 5 mo., with, among women over 30, an average delay of 1 mo. attributed to the physician. On the contrary, among younger women the responsibility for delay was about equally shared by physician and patient. Loss of time exceeding 6 mo. was more common in younger than in older women. Incorrect initial diagnosis with regard to invasive carcinoma of the cervix occurred more than 3 times as often in younger women, and this ratio became more unfavorable year by year. The greater number of errors in diagnosis was associated concomitantly with a greater use of inappropriate therapy. The routine use of cervical cytologic screening methods as a part of the complete physical examination has been more effective in a short period of time in lowering the incidence of advanced carcinoma than the educational programs previously used.

A Review of Congenital Cystic Disease of the Lung*

LARRY H. PARROTT, M.D., Keesler AFB, Miss.

Congenital cystic disease of the lung is a rare and an interesting disease. Ravitch,[1] who has had a long interest in this disease, cites several key points concerning the condition: "The cysts are lined by tall, ciliated columnar epithelium and may contain cartilage in the walls. The commonest presenting clinical picture results from infection of the cysts. Air in cysts, anthracotic pigment in their lining or entrance of Lipiodol on bronchography, demonstrates communication with the bronchial tree in all cases. In single large cysts, with a flap type of bronchial communication, the cysts may distend with air under tension and cause severe respiratory distress. The repeated infections result from the presence of large, ill-drained spaces connected to the bronchial tree and excision of the cyst or involved pulmonary lobes or segments is the only effective treatment. After diagnosis, early operation is indicated."

The disease is rare. In a survey of autopsies at Duke University Hospital, it was found that only 2 cases of congenital cystic disease of the lung have been diagnosed. In the experience of Vanderbilt University Hospital, 5 cases have been diagnosed at autopsy as congenital cystic diseases of the lung.[2]

Etiology

The etiology of "congenital cystic disease" presents a difficult problem. Various etiologic factors and theories have been postulated varying from congenital anomaly to infection.

No specific causative factor has been demonstrated. The following will review some of the ideas on etiology. Stoerk, in 1897, believed that pulmonary cystic disease represented a neoplasm, since disproven. Syphilis was once thought to be a cause but the findings have proved only coincidental. Pneumonic infection has been strongly postulated as the primary disturbance, though the absence of evidence of infection in many cases fails to support this theory. Secondary infection, however, is apparently quite common and adds to the etiologic confusion. Dilation of the lymphatics as a cause of the cystic disease has not been proven as an etiologic basis.[3]

Most authors now agree that cystic disease is probably the result of a developmental error or anomaly. Ravitch[1] has stated, "Occurrence of the disease in newborn infants establishes it as congenital." Although the exact genesis is still unknown, it may represent a genetic abnormality in one or both of the parent cells, and exist as an atavistic trait. On the other hand it may be the result of external factors affecting the development of the embryo, as trauma and radiation.

Whatever the cause, the cyst develops and forms a structure with the characteristics of either bronchi, bronchioles, atria, infundibula, or alveoli. The integral parts of the cyst may consist of muscle, fibrous tissue, and/or cartilage. The epithelial lining usually varies from cuboidal to columnar. There may be multiple or single cysts, they may communicate with the bronchus and may vary greatly in size.[1]

One form of congenital cystic disease is intralobar bronchopulmonary sequestration of the lung. This complete or partial separation of pulmonary tissue from the lung proper is found most frequently in the left lower lobe. An aberrant artery from the aorta due to a persistence of the vascular connections between the dorsal aorta and pulmonary plexus, usually serves as the blood supply. Pryce,[4] after intensive study of this lesion, considers the abnormal arterial supply to be the primary lesion. Cases are described in which it was present by itself, resulting from separation of a bronchial tip of the embryonic bronchial tree probably by traction of the adventitious blood supply. Pryce stated that pulmonary

*From the Department of Surgery, Vanderbilt University School of Medicine, Nashville, Tenn.

sequestration occurs in various degrees—complete, intralobar and extralobar—dependent on the stage in embryonic life at which it occurs. (The anomalous artery may undergo changes of pulmonary hypertension.) The symptoms of intralobar sequestration are usually due to secondary infection and definitive diagnosis can be made by x-ray, bronchogram, and/or aortography. Surgical resection is the treatment of choice, with special care against hemorrhage from the anomalous blood vessels.[5]

Diagnosis

The symptoms of congenital cystic disease of the lung are predominantly those of pulmonary infection, consisting of cough, dyspenea, and sputum. Age of onset is variable, and the symptoms often simulate bronchopneumonia.

Ravitch and Hardy demonstrated that each cyst had communication with the bronchial tree, proven by bronchograms, observation at operation, and x-ray examination. Secreting epithelium of the cyst wall, by communication with the bronchial tree, continues to promote stasis and coughing; in fection of the cysts may cause an overflow of purulent secretions and eventually produce secondary bronchiectasis.[1] The serious aspect is that infection increases until it becomes irreversible. Death has been reported from pneumonia following infected cysts.

The formation of blebs or bullas is related to positive pressure in the cavities secondary to infection, resulting from, (1) bronchiolar or alveolar damage, (2) fibrous tissue, and (3) a free ingress of air with impeded egress. Infection seems to be common in congenital cystic disease, whereas infection is uncomon in blebs and bullae.[6]

The tentative diagnosis of congenital cystic disease is usually made by x-ray. A spherical clear-cut air-filled pocket is usually seen, and may be of any size and location. The differential diagnosis includes bronchiectasis, penumothorax, empyema, abscess of lung, tuberculus cysts, and pneumatocele.

A definitive diagnosis of a congenital origin or one acquired is made by the pathologist. Gross[7] describes the criteria for confirmation of the diagnosis as follows:

> "Such an abnormality of the lung may arise as a solitary, globular, structure from an accessory bronchial bud and thus appear as a pedunculated, balloon-like affair, situated between pulmonary lobes or else projecting in front of or behind the lung root. More frequently, cysts develop within the lung substance and under such circumstances they are quite apt to be multiple. The lining membrane is composed of a bronchial epithelium, the individual cells of which are mucus-secreting, ciliated, and columnar in type. This histological feature positively identified the cyst as being congential in origin."

In the past, terms have been used too loosely, and the phrase "cystic disease of the lung" has included several diseases, as congenital cystic disease of the lung, acquired cystic disease of the lung, cystic bronchiectasis, bullous emphysema, pleural blebs, chronic interstitial pneumonitis with emphysema, and pulmonary pneumatoceles. Some of these are quite difficult to classify, and until about 1940, congenital cystic disease of the lung was used to describe any formation of intrapulmonary cyst. Maier and Haight[8] concluded that acquired and congenital cysts can be often differentiated microscopically, in that the epithelial wall of a *congenital cyst* may contain bronchial elements, such as cartilage, glands, and smooth muscle and the epithelium is bronchial in type unless replaced by squamous epithelium because of metaplasia or destroyed by infection. The *acquired cyst* on the other hand, with an epithelial lining usually does not have cartilage and muscle in the wall.[11] They commented on upper lobe cysts as follows:

> "In regard to the upper lobe cysts, I certainly agree that many of them give no symptoms, and I feel that a considerable number are acquired cysts, secondary to infection. I believe that, out of a total number of cystlike spaces in the upper lobe that are seen, only a small number are epithelialized, and therefore the problem of treatment is rather different. There is a good possibility of the non-epithelialized cyst disappearing spontaneously."

The differential diagnosis of pulmonary cysts from empyema can be made usually by the x-ray. The contour of the fluid pocket in cystic disease of the lung is usually spherical or oval. A fusiform or triangular shape is taken by an empyema cavity. The pleura is usually not thickened in a pulmonary cyst, whereas in empyema the pleura thickening, especially the parietal pleura, is quite pronounced. The two con-

ditions may well occur together and confuse the picture.[8] The early diagnosis of balloon cysts is imperative because of the danger of fatality with increasing expansion.

A form of true congenital cystic disease is adenomatoid malformation of the lung, which may be present with congenital cystic disease in areas of the same lung. Congenital cystic disease differs by having no roentgenologic demonstrable mass in the area, and having larger and often single cysts. The symptoms of the adenomatoid malformation are early cyanosis and tachypnea; surgical extripation is the treatment of choice.[9]

Treatment

The surgical removal of most cysts is the only definitive and good treatment. Drugs, bronchial aspiration, and drainage offer only temporary and symptomatic therapy. Attempt to close a bronchial fistula without removing the cyst only complicates the ultimate needed surgery.

Operation is the treatment of choice but there are differences in opinion in this regard. Ravitch and Hardy[1] favor operation whether the patient is symptomatic or not, believing that all cysts will eventually become infected. Gross[7] states that if cysts do not become infected and if they are so small as not to disturb pulmary physiology, their existence is of academic interest only; cysts may persist for years without ill effects on the patient.[1] Allbritten and Templeton[6] favor surgical removal of the cyst wall, but discourage lobectomy or needless removal of normal lung in balloon cysts. They excise the cyst wall, close the bronchial orifices, sacrifice only the pulmonary tissue adjacent to the cyst, and re-expand the lung by temporary drainage postoperatively. If operation is decided upon, age is no contra-indication. In 1946, Gross successfully operated on a three week old infant. Clark, Nairn, and Gowan[10] reported successful pneumonectomy in a nine day old infant, operated upon in 1954.

Operation is the treatment of choice for an infected cyst. Maybe there is no uniform opinion on the specific surgical procedure to be used. The various procedures described are simple excision of the cyst, segmental resection, lobectomy, and penumonectomy. [1, 6, 7, 10]

A technical factor of anomalous blood supply to the lung must always be considered in lobectomy, since it can be severed inadvertently with fatal hemorrhage. Such an artery often arises from the descending aorta and enters the left lower lung.[11]

The outlook was grave in 1936 for congenital cystic disease in infants and children, though even then there were infants who recovered completely with and without treatment. The lesion with the gravest prognosis was the expansible balloon type cyst which caused severe attacks of cyanosis and dyspnea. (This type communicates with the bronchus.) Infection made the prognosis even poorer if it was present.[3]

Conclusion

The paper reviews a portion of the literature of the past 25 years on congenital cystic disease of the lung.

The etiology, symptoms, differential diagnosis, and treatment of the disease are presented.

The disease is now correctible by surgery, and therefore a more favorable prognosis is expected.

References

1. Ravitch, Mark M., and Hardy, Janet B.: Congenital Cystic Disease of the Lung in Infants and Children, Arch. Surg. 59:1, 1949.

2. Personal study.

3. Schenck, Samuel G.: Congenital Cystic Disease of the Lungs, Amer. J. Roentgenol. 35:604, 1936.

4. Pryce, D. M.; Lower Accessory Pulmonary Artery With Intralobar Sequestration of Lung. A Report of Seven Cases, J. Path. Bact. 58:467, 1946.

5. Katz, Sol.: Intralobar Bronchopulmonary Sequestration, GP 16:112, 1957.

6. Allbritten, F. F., Jr., and Templeton, John Y. III: Treatment of Giant Cysts of the Lung, J. Thor. Surg. 20:750, 1950.

7. Gross, Robert E.: Congenital Cystic Lung, Successful Pneumonectomy in a Three-week Old Baby, Ann. Surg. 123:229, 1946.

8. Maier, H. C., and Haight, Cameron: Large Infected Solitary Pulmonary Cysts Simulating Empyema, J. Thor. Surg. 9:471, 1940.

9. Craig, J. M., Kirkpatrick, J., and Neuhausser, E. B. D.: Congenital Cystic Adenomatoid Malformation of the Lung in Infants, Amer. J. Roentgenol. 76:516, 1956.

10. Clark, N. S., Nairn, R. C. and Gowan, F. J. Sambrook: Cystic Disease of the Lung in the Newborn Treated by Pneumonectomy, Arch. Dis. Child. 31:358, 1956.

11. Harris, H. A., and Lewis, Ivor: Anomalies of the Lungs With Special Reference to the Danger of Abnormal Vessels in Lobectomy, J. Thor. Surg. 9:666, 1940.

om the
xecutive
irector

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

ACTIONS OF THE BOARD OF TRUSTEES

Board of Trustees Quarterly Meeting January 12-13

● The Board of Trustees met in Nashville on Saturday and Sunday, January 12-13. The following action taken by the Board should be of interest to members of the Association.

Completing unfinished business, the Board confirmed a mail ballot to approve a resolution adopted by the Advisory Committee to the Tennessee Division of Vocational Rehabilitation. The resolution contained a petition to the Governor to expand the budget in keeping with the committee's recommendation for vocational rehabilitation in Tennessee.

Public Health Department Recommends Pocket Folder

● A pocket folder to be carried by individuals showing vaccinations taken, allergies and sensitivities, as recommended by the Commissioner of Public Health, was endorsed by the Board. The Trustees strongly recommended the folder's use be widely publicized.

1963 Nominating Committee Appointed

● In keeping with Chapter V, Section 2 of the By-Laws, the Board appointed a Nominating Committee for 1963 from a list of certified delegates furnished by county medical societies in the state.

Appointees are:
Dr. A. M. Patterson, Chattanooga
Dr. Dan R. Thomas, Knoxville
Dr. H. L. Monroe, Erwin
Dr. W. O. Vaughan, Nashville
Dr. K. M. Kressenberg, Pulaski
Dr. Carl Adams, Murfreesboro
Dr. Harold B. Boyd, Memphis
Dr. J. Paul Baird, Dyersburg
Dr. Charles N. Hickman, Bells

Committee Appointments Made for 1963-64

● All appointments were made for TSMA's Standing and Special Committees for 1963-64. The appointments will be effective following the annual meeting in April.

Committee on Medicine and Religion Established

● At the request of the American Medical Association, the Board appointed a Committee on Medicine and Religion. A committee of five was named to represent the three grand divisions of the state as well as the major religious denominations. County Medical Societies will be requested to establish similar committees. Duties of the committee and its work will be announced.

TSMA Student Education Fund Established

● The Chairman of the Committee on Youth and Education, Dr. Burkhart, recommended to the Board that the Student Loan Fund be administered by a Board of Directors appointed by the TSMA Board of Trustees, such Board to include the Chairman of the TSMA Board and the Chairman of the Committee on Youth and Education. A charter drawn by the attorney for TSMA was presented. The TSMA Student Education Fund will consist of a seven-man Board of Directors with

representation from the three grand divisions of the state and the major metropolitan areas.

Board of Trustees Planning Committee Reports on Proposed By-Laws Revisions

● Dr. Burkhart, Chairman of the Trustees' Planning Committee, outlined proposed amendments to the By-Laws approved by his committee and recommended for endorsement by the Board. The amendments will be presented to the House of Delegates in April. The amendments are principally changes to coincide with amendments to the Constitution now lying on the table and to be acted upon in April. The intention of the amendments is to modernize the organization and procedure of the Association. The Board endorsed the proposed amendments with but few changes.

1964 Annual Meeting —Adequate Facilities at Nashville Not Available

● Dr. Kampmeier and Mr. Ballentine made a detailed report regarding the facilities available in the new auditorium in Nashville, where the 1964 annual meeting is scheduled to be held. Conditions in the auditorium are entirely unsuitable to conduct the Association's annual meeting and a recommendation was made to the Board not to use this facility in Nashville. No other usable location has been found. The Board recommended continuing to rotate the annual meeting between the three grand divisions of the state and to use facilities in Chattanooga, Knoxville and Memphis, until such time that Nashville made suitable facilities available to conduct the annual meeting.

Battered Child Syndrome Legislation

● Heard a report from Dr. Vaughn pertaining to legislation proposed by the D.A.R., to make it mandatory for doctors to report cases of child beating. This idea was approved in principle, pending further study of the legislation.

Other Actions

● Approved of inviting the press to attend the TSMA Officers Conference on February 3rd in Nashville.

Recommended the policy to be followed in releasing public information on controversial issues arising from reports made by various committees at the annual session of the House of Delegates.

Sabin Vaccine

● The Board reviewed its policy pertaining to the use of Sabin Vaccine. The action of the Board was to re-confirm its present policy wherein county societies would be encouraged to conduct mass oral vaccination programs until information is received to warrant further recommendations.

Other Information

● Approved the annual audit for the fiscal year 1962 for the financial operations of the Association.

Heard a discussion presented by the President, Dr. Sheridan, reviewing activities of the Mental Health Committee and the Planning Committee for the Statewide Mental Health Conference scheduled in 1963.

Dr. Annis Addresses Joint Session of Tennessee General Assembly

● A new first has been attained. Dr. Edward R. Annis, President-Elect of AMA and principal speaker at the TSMA Executive Officers Conference, addressed a joint session of the House and Senate in the State Legislature on February 5th. This is the first time on record where a visiting physician, of the status of Dr. Annis has been accorded the privilege of addressing the General Assembly.

Legislation

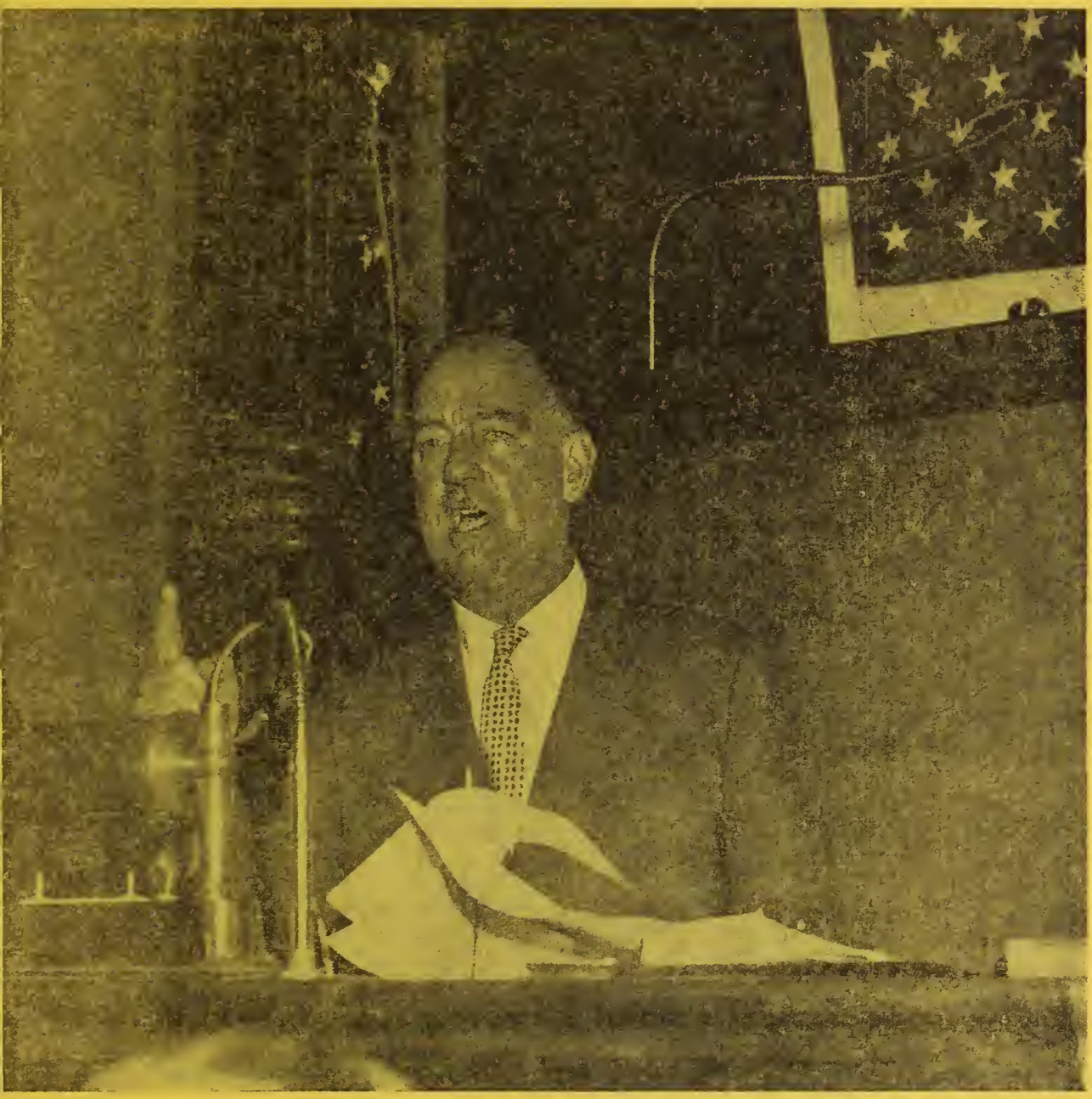
● Difficult legislative sessions are ahead . . . Congress, with Medicare among major issues, and the Tennessee General Assembly, where anticipated bills involving medicine may arise. This means that all physicians must keep in close touch with their Congressmen and state legislator.

1963 Annual Meeting

● WATCH EACH ISSUE OF TSMA JOURNAL FOR FEATURES ABOUT THE 1963 ANNUAL MEETING TO BE HELD IN KNOXVILLE. BETTER WRITE NOW FOR ROOM ACCOMMODATIONS. . . .

Public Service

THE TENNESSEE TEN



Dr. Edward R. Annis, President-elect of the American Medical Association, addressing a joint session of the 83rd Tennessee General Assembly in Nashville on Tuesday, February 5, 1963.

Dr. Annis Addresses The Legislature

● Dr. Edward R. Annis completed a three day speaking engagement in Nashville this week with an address before a joint session of the Legislature, Tuesday morning, February 5, as authorized by Senate Joint Resolution No. 15, introduced by Senator Herman Robinson of Elizabethton. The Legislature met in the House Chamber at 10:00 A.M.

Lt. Governor James L. Bomar, who presided, introduced Dr. William J. Sheridan, TSMA President, who in turn introduced Dr. Annis.

Dr. Annis told the Legislature that he was appearing before them not to engage in controversy but to discuss a matter of law: the Kerr-Mills Law.

The Miami surgeon emphasized that the medical profession wants Kerr-Mills strongly implemented to assure that all persons over 65, who are unable to pay can get such care.

Referring to Social Security tax payments in Tennessee, Dr. Annis pointed out that on January 1 of this year Tennesseans paid an additional $26 million by virtue of the increase in the tax on the employer and employee. He further pointed out that the two increases in the tax already scheduled to go into effect will mean that by 1969, economic conditions remaining stable, Tennesseans will be paying an additional $52 million.

The AMA President-elect told the Legislature that had King-Anderson gone into effect this year the added increase in Social Security taxes would have been $31 million. Had the Senate Amendment to King-Anderson (to provide Medicare to all persons over 65) been enacted the total increase this year to Tennesseans would have been $37 or $38 million, he said.

"And think of what you can do in Tennessee for just a fraction of $37 or $38 million," he said.

——0——

Executive Conference Held in Nashville

● More than 250 physicians, members of the Auxiliary, and Medical Assistants, attended the 3rd Bi-Annual Executive Conference for state and county medical societies officers in Nashville, February 3.

Governor Frank G. Clement delivered the keynote address. He assured the conferees that he would work in close cooperation with the medical profession in all state programs relating to health care.

The theme of the Conference was "Organization" and included talks and panel discussion on the roles of the national, state, and local medical organizations; recent policy decisions which affect the profession; explanation of TSMA's legislative program; health insurance planning; and a report from Dr. Robert N. Sadler on the future activities of IMPACT (Independent Medicine's Political Action Committee – Tennessee).

The program wound up with a public relations panel in which agriculture, labor, and professional public relations spokesmen outlined the status of the "image" and offered constructive criticism.

Dr. Annis was the luncheon speaker; his main theme: we are winning — we will win — but we need the help of "all hands and the cook".

STAFF CONFERENCE

City of Memphis Hospitals*

Pelvic Thrombophlebitis

DR. MARY ELLEN BOULDIN: L. W. is a 30 year old colored woman, gravida XIV, para X, ab. III, with 10 living children, whose youngest child was five months old.

Present Illness: She was admitted to the obstetrical service of the City of Memphis Hospitals Sept. 26, 1962 with the complaint of vaginal bleeding of 3 days duration. Her last normal menstrual period had been 10 weeks prior to admission. There was no further bleeding until 3 days prior to admission when she began using eight to ten pads per day with the passage of small clots and questionable tissue. She experienced mild bilateral lower abdominal cramping as well as chills and fever on the day of admission. The patient denied instrumentation, vomiting, bowel disturbances, shoulder pain or fainting. A detailed review of systems revealed no further significant history.

Physical Examination: On admission her T. 103.2°, P. 130, R. 24, and B.P. 110/70. She was an alert, well developed, well nourished colored woman in no obvious distress. Significant physical findings were limited to the abdomen and pelvis. The abdomen was scaphoid, without scars, and without palpable organs or masses. There was mild tenderness to deep palpation in the midline just above the symphysis pubis, but there was no rebound tenderness. Bowel sounds were normal. The essential pelvic findings revealed that the vaginal vault contained 10 cc. of dark red, foul smelling blood. The cervix was clean, blue and soft and admitted one finger. The uterus was anterior, of 10 weeks size, movable and mildly tender. There were no adnexal masses and there was no adnexal tenderness. The ovaries could not be palpated. The cul-de-sac was empty and nontender.

Laboratory Studies: On admission these revealed a hematocrit of 32%, WBC. of 12,700 with 80% segs; urinalysis revealed no abnormalities.

The impression on admission was infected early incomplete abortion.

Course in Hospital: The patient was given penicillin (intravenously and intramuscularly) and streptomycin. She remained febrile, and approximately 30 hours after admission had a uterine curettage with Meperidine analgesia. A small amount of foul smelling tissue was obtained. This was reported by the pathologist as decidual tissue with marked infiltration of inflammatory cells.

The patient continued to spike fever to 101° to 102° daily, but she was otherwise relatively asymptomatic. On the 4th hospital day, chloramphenicol was started, and penicillin and streptomycin were discontinued. A febrile course persisted. On the 7th hospital day, pelvic examination revealed a tender adnexal mass, high on the right side, 6 to 8 cm. in diameter, tensely cystic and fixed. The impression at this time was a broad ligament or parametrial abscess which was not accessible to vaginal drainage. Two days later, on the 9th hospital day this mass was fluctuant and was regarded as pointing in the right lower quadrant just above the inguinal ligament. Her temperature was 105° on that day, and she had a severe chill, pulse 132 and WBC. count of 29,000 with 83% segs.

It was thought that incision and drainage was indicated. This was accomplished through a right lower quadrant gridiron incision. Upon opening the peritoneum a 6 to 8 cm. mass which appeared to be an abscess was noted with omentum and bowel markedly adherent. The possibility of an appendiceal abscess was considered. About 150 cc. of thick, yellow, fowl pus was obtained from this abscess cavity. Two drains were placed, one in the cul-de-sac and one in the abscess area itself, and both were brought out through the abdominal incision. Subsequently there was little drainage from these, and they were removed on the 4th postoperative day. The patient continued to spike fever to 103° to 104° daily with a pulse of 110 to 120. She had normal bowel movements and no evidence of abdominal tenderness or redevelopment of a mass. On the 13th hospital day she again developed severe chills, several times daily. This, plus the continued febrile course, prompted a change of antibiotics from chloramphenical to erythromycin. This change had no effect on the patient's septic course.

During this entire period extensive attempts to identify a specific etiologic causative organism failed. Cultures of uterine swabs taken on admission and at the time of curettage grew out *Staphylococcus aureus,* coagulase negative. Cultures of the purulent material from the abscess cavity revealed anaerobic beta *Streptococcus hemolyticus.* Repeated blood cultures showed no growth with the exception of one which produced hemolytic *Staphylococcus aureus,* coagulase negative. All of these organisms were reported sensitive to the commonly used antibiotics, including those which the patient had been receiving. Investigative procedures with regard to the respiratory, genitourinary, gastrointestinal, and central nervous systems (including repeated chest and abdominal films, skin tests, urinalyses, lumbar puncture, stool examinations) failed to reveal any evidence of infection in these systems. Repeated stool specimens were negative for ova and parasites, and blood studies were negative for malarial parasites.

During this time the patient's hematocrit decreased from 32% to 26% without evidence of external or internal bleeding. Consultants in hematology viewed this as attributable to toxic

*From the Department of Obstetrics and Gynecology, University of Tennessee College of Medicine, Memphis, Tennessee.

53812

depression of the bone marrow due to infection. At this point the patient had been hospitalized for 3 weeks and had been treated with four antibiotics without improvement.

DR. JOHN Q. ADAMS: Several questions could be introduced now concerning this patient's care. I would first like to discuss the question of a dilatation and curettage on patients with septic abortions. During the last two or three years, we at this institution have been performing D & C's on infected abortions once an antibiotic level has been established, and up to now there have been no serious consequences. It is possible that this case may illustrate a complication of intrauterine manipulation in the presence of infection. Thirty hours were allowed to elapse after admission, however, giving time for the antibiotic to become effective, and I do not think that the D & C was contraindicated in this case.

DR. SAM P. PATTERSON: I would suppose during the management of this case it was thought that this patient had a parametrial abscess, as was proved at the time of drainage. However, prior to this time an infected ectopic pregnancy should have been considered because of the report of decidua on the curettings. Certainly it was ruled out when the incision and drainage was performed and a broad ligament abscess was found.

DR. LESTER R. GRAVES: Pelvic examination following the curettage revealed a right adnexal mass. This finding and a report on curettings of decidua suggested the possibility of infected ectopic pregnancy. With this in mind, the question then arises as to whether the incision made in this case was actually the best one. The small gridiron incision made it impossible to determine conclusively whether this was a parametrial abscess or an infected ectopic pregnancy. Possibly this patient should have been explored through a midline incision which would have assured better exposure.

DR. P. A. TURMAN: Not finding villi in the curettings yet finding decidual tissue pointed strongly to the possibility of an ectopic pregnancy. Nevertheless, I believe that the fact that the abscess was successfully drained justifies the procedure and that further exploration was not indicated.

DR. MARTHA LOVING: Further exploration might have answered the question regarding the possibility of an infected ectopic pregnancy. Since the patient had been followed a week on high doses of antibiotics, since the pelvis had cleared completely, and since there were no masses palpable and no tenderness, I feel that the question of ectopic pregnancy had been ruled out by time, if not by exploration.

DR. GRAVES: True, this may have been the case. However, had the original exploration been through a midline incision actual removal of the tissue might have been more effective than drainage. With this tissue the possibility of an ectopic pregnancy could have been clarified.

DR. HENRY B. TURNER: The antibiotic therapy in this case follows the routine in this institution in that penicillin and streptomycin were used initially. This has been our policy when no organisms are cultured. However, after culture and sensitivity studies are obtained, the antibiotic to which the organism is sensitive is begun. In this particular case, the cultures were not conclusive, and on the fourth hospital day chloramphenicol was begun. Subsequent cultures revealed a number of organisms among which were anaerobic streptococcus and *Staphylococcus aureus,* coagulase negative. On the ninth hospital day erythromycin was started because sensitivity studies had revealed that all the reported organisms were sensitive to it. The patient had then been in the hospital three weeks with no response to any antibiotic. A number of questions could be raised at this point. We have seen instances in which fever was maintained by antibiotic therapy itself. Had any consideration been given to discontinuing all antibiotics?

DR. BOULDIN: Yes sir. It was elected at this point, three weeks after admission, to discontinue all antibiotics. Repeated blood cultures showed no growth, and the patient continued to spike temperatures to 104° to 105° daily with chills. Otherwise, she was asymptomatic. Re-evaluation of the patient after nine days without antibiotics (one month after admission) revealed that no essential change had occurred other than an insidious deterioration of the patient's general condition as evidenced by increasing lethargy and anorexia.

DR. LOVING: I believe at this point one should have suspected pelvic thrombophlebitis, secondary to an infected abortion. Anticoagulant therapy or vena caval ligation should have been considered. At some centers this type of therapy would have been instituted much earlier when there was a failure of response to antibiotics. In more conservative places, this possibly would have been delayed, but now we are at the point in the discussion where it should have been considered very strongly.

DR. TURMAN: The thought of this being septic thrombophlebitis was entertained and consultation requested of the surgical service with the idea of their doing a vena caval ligation. In addition to the general surgical service, the vascular surgical service was asked to see the patient. There was a very strong impression at this time that the patient had all the criteria usually accepted by those who advocate vena caval ligation for resistant puerperal sepsis. According to all criteria that we could recognize, this case was classical for vena caval ligation, although we have never performed this operation on our service. I think it worthwhile to mention that there are some services, well known throughout this country, which resort to vena caval ligation more often. These services are confronted with this problem much more frequently than we have been.

DR. PHIL C. SCHREIER: The opportunity occurred to present this patient to a visiting professor from one of these other large services. He said there were two points at which vena caval ligation would have been done. Less conservative attendants would have performed this soon after she began to have chills and fever in the absence of pelvic masses, suspicioning septic pelvic thrombophlebitis. On the other hand, even the most conservative would have advocated vena caval ligation on the 21st day rather than discontinuing antibiotics.

DR. BOULDIN: As Dr. Turman has noted, consultation with the surgical services was requested, although for five days prior to this request the patient was treated vigorously with kanamycin. She was anticoagulated and was transfused to correct her anemia. No improvement occurred during this five days of therapy. On the 35th day of hospitalization the surgical consultants evaluated this patient for inferior vena caval ligation. On the same day, for the first time, she showed x-ray evidence of pulmonary infarction. She also had nonobstructive jaundice. An intravenous pyelogram at this time suggested a pelvic mass pressing on the bladder. Although the surgical consultants were unable to palpate a mass, it was their opinion that exploration was necessary. The patient was transferred to the surgical service six and one half weeks after admission. An exploratory laparotomy failed to confirm an abscess, and the abdominal and pelvic viscera were normal. The pelvic vessels revealed no palpable pathology. A normal appendix was removed incidentally.

DR. LOVING: Apparently the chest findings were disregarded. It is my impression that most services advocate vena caval ligation once embolization has occurred.

DR. H. E. ATHERTON: Now we have dispelled the possibility of ruptured appendix having caused the abscess that was drained and also have clarified the question of ectopic pregnancy. The thrombosed and distended pelvic veins associated with pelvic thrombophlebitis are not always palpable. I am wondering why the surgeons did not proceed with a vena caval ligation at this time. It seems that those who had been in constant contact with this patient certainly would have urged this.

DR. BOULDIN: Postoperatively the patient continued to have chills and fever to 104 to 105 for the next week. Jaundice worsened markedly, and the bilirubin rose to 13 mg. per cent. In addition, chest films showed marked bilateral lower lung infiltration and possible effusion. An electrocardiogram showed evidence of myocarditis and suggested pulmonary embolism. Clinically the patient appeared more seriously ill than at any previous time. Repeated blood specimens continued to produce no growth on culture. The revised impression of the surgical staff was that this patient probably had thrombophlebitis of the portal system with liver abscesses and lung involvement, secondary to septic abortion and pelvic cellulitis. Apparently in their opinion systemic involvement was too great for her to benefit

from vena caval ligation at this time. It was therefore elected to administer massive doses of penicillin. Accordingly, one week postoperatively she began receiving 30 to 45 million units of intravenous penicillin daily.

DR. SCHREIER: I am told that the surgical service had a visiting professor who saw the patient on rounds. He remarked that in spite of the fact that the patient seemed beyond rescue, he still favored vena caval ligation to prevent further embolization. I think that this was a most interesting comment. I wonder how many of those who are enthusiastic about vena caval ligation would go so far as to say that this patient was still a candidate. It seemed that those who made the decision elected not to do the vena caval ligation because of her critical condition.

DR. BOULDIN: As previously stated, the patient began receiving 30 to 45 million units of intravenous penicillin. She was also treated with emetine for possible amebiasis, and she was given staphcillin for one week. Seven days after penicillin therapy was started the patient became afebrile and continued so for the remainder of her hospital course. She received massive penicillin therapy for three weeks, during which time jaundice gradually cleared, and her general physical condition improved. Chest films continued to show evidence of bilateral pulmonary infiltration with effusion. A thorocentesis produced a small amount of serous fluid which showed no growth on culture. She was discharged nine and one half weeks after admission with instructions to continue oral penicillin and intramuscular bicillin. At the time of discharge there was laboratory evidence of liver disease and radiographic evidence of lung disease. She was afebrile and asymptomatic, is now being followed as an out patient, and continues in good general condition.

DR. SCHREIER: The problems involved in diagnosis and therapy in the patient presented have elicited divergent attitudes. Although we have never resorted to vena caval ligation for pelvic thrombophlebitis, it seemed to some of us that it was mandatory as brought out in the discussion. That it was not done and the patient recovered invites much retrospective discussion if not genuine argument.

I appreciate the interest shown by all concerned and your participation in this conference.

Comparative Results of Three Tests for Diabetics in Normal Persons. Pate, Wm. W. H., Jr., and Poucher, Russell L.: Diabetes, 11: Suppl. 132, 1962.

Three tests for diabetes were performed on 175 individuals—104 with a close family history, 39 with a distant family history, and 32 with no family history of diabetes. The tests were The IVTRT (intravenous tolbutamid response test), SGTT (standard glucose tolerance test) and CGTT (cortisone glucose tolerance test.)

The SGTT was more sensitive than the IVTRT for the diagnosis of diabetes. The IVTRT should be used only as a supplement until its usefulness is established. The lack of detection of diabetes by random glucose values again emphasized the importance of the SGTT. Further study of the CGTT is necessary before its ultimate value in detection is established. (Reviewed for the Tennessee Diabetes Association by Fred Goldner, M.D., Nashville.)

CLINICOPATHOLOGIC CONFERENCE

Methodist Hospital, Memphis*

Rupture of the Heart

History: This 61 year old white male salesman was admitted on May 1, 1962 with complaints in the back and chest pain. These began during the night as vague substernal discomfort which did not interfere with sleeping. By morning the pain was still present, together with sweating, and the patient was thereupon hospitalized.

He had been admitted previously on Oct. 18, 1959 with complaints of malaise and a cold. At that time he also had had a sudden onset of claustrophobia, and had had one episode of sciatic pain. Laboratory studies then included a normal blood count, and urinalysis, nonreactive serology, normal NPN and glucose, but an 18.7% retention of BSP. X-ray studies of the upper gastrointestinal tract and colon were unremarkable. Cholecystogram was also normal. The preliminary KUB. showed a soft tissue mass over the left psoas shadow and subsequent lateral films were thought consistent with a moderate-sized abdominal aortic aneurysm. EKG. showed an incomplete bundle branch block and electroencephalogram was within normal range. The patient was informed of the finding of aneurysm and operation was scheduled for Nov. 2, 1959 at another hospital.

The System Review and Social History at the final admission were noncontributory. Family history revealed that a sister had died of malignancy and the mother had died of heart disease. Physical examination revealed a T. of 97°, P. 70, R. 18, B.P. 170/100. No abnormalities were recorded.

Admission laboratory data revealed a hematocrit of 47%, Hgb. 15.4 Gm., WBC. count 11,130 with 83% segmented neutrophils, 12% lymphocytes, 5% monocytes. The admission urinalysis was negative. The SGO transaminase on May 1 was 9 units; on May 2, 18 units, and on May 3, 52 units. The admission EKG. revealed, "right bundle branch block, possible posterior myocardial infarction." An EKG. subsequently confirmed the impression of posterior or posterolateral infarction. The patient was treated with oxygen, intravenous heparin, warfarin (Coumadin), meperidine, and phenobarbital. Digitalization was begun with cedilanid on May 3. The patient responded reasonably well until about 8:15 A.M. on May 4, when he suddenly expired.

DR. C. HAROLD STEFFEE: We thought we would try a couple of innovations in the presentation tonight. The one that will greet you first is the fact that we have asked our senior surgical resident, Dr. J. W. Holmes, to be the prime discussant this evening. This will be the last CPC Dr. Holmes will participate in as a resident and so it was "grab him now or he will get away for quite a spell." The major change in format consists in the fact that we have about three people who have been primed a bit to lead the floor discussion. The case presented tonight was selected because it has both medical and surgical interest; it was an extremely straightforward case, of course the diagnosis may not be obvious, but the case is straightforward.

Briefly, this is a man who was admitted to the hospital because of persisting substernal discomfort. He gave a past history of having had an episode of acute claustrophobia in 1959 with malaise and sciatic pain. His laboratory studies at that time were essentially unremarkable except for an 18.7% retention of BSP and a shadow on the x-ray, interpreted as an aortic aneurysm. At the last admission his blood pressure was 170/100. Other vital signs were essentially normal. The laboratory data were not terribly remarkable; the white count was up a little bit, 11,130 with 83% segmented neutrophils. He had three transaminase determinations revealing 9, 18, and 52 units respectively. Admission electrocardiogram revealed a right bundle branch block and possible posterior infarction. Repeat electrocardiogram confirmed the impression of posterior or posterolateral infarction. He was treated with the usual regimen for a patient with a myocardial infarct. He did very well until all of a sudden he died. With this, I shall turn it over to Dr. Holmes for the clinical discussion.

DR. J. W. HOLMES: I am one of those who was primed for this tonight. About three weeks ago Dr. Steffee informed me of this, and assured me that I would have some advance confidential information. I want to thank him for getting me my copy of the CPC in the mail this morning. There is not too much here that is very impressive to me, other than what appears to be a relatively straightforward case. This man's complaints of back and chest pain were described as vague, substernal, and not interfering with his sleep. The pain was still present the next morning with some sweating, and he was hospitalized. It is still difficult to tell whether or not many of the

* From the Departments of Surgery, Medicine, and Pathology, Methodist Hospital, Memphis, Tenn.

things I have considered would come on with only a vague, non-sleep disturbing pain, but I suppose it is possible. From his previous admission we learn of an episode of claustrophobia which may tie in with one of the diseases I have considered, the sciatic pain, and the 18% retention of BSP. Now, I have been unable to tie this in to anything. I have considered strongly that this may be an unrelated laboratory test, or it may be felt to be not significant because of error, because we have no information on any other liver function studies having been ordered.

We have an electrocardiogram showing an incomplete bundle-branch block with later cardiogram showing a right bundle branch block. I think this would indicate some progression there. Dr. Mitchum, do you want to show the x-rays now?

DR. W. R. MITCHUM: This is a microfilm of the plain film of the abdomen which preceded the upper G.I. series. There is a convexity to the left of the spine surrounded by a halo of decreased density which is probably periaortic fat. This was suspicious of an aneurysm. After the G.I. series, a lateral film of the lumbar spine was made which you see here. There is a well-defined mass anterior to the spine, but partially obscured by residual barium in the colon. This fulfills the criteria of an aortic aneurysm, although it does not have calcium which frequently helps us make a diagnosis. There may have been a palpable mass with pulsations, but we do not have this information. I assume that there was, because the protocol says an operation was scheduled. This, in all likelihood, represents an abdominal aortic aneurysm, although a retroperitoneal mass, such as lymphoma, could conceivably produce the same findings. I believe that the G.I. series is entirely noncontributory. There are old electrocardigrams here for any one who wishes to study them.

DR. HOLMES: Now, we will take the radiologist's word that this is a retroperitoneal mass, most likely an aneurysm. It would be interesting to know if operation was performed on this patient as it was scheduled.

DR. STEFFEE: It was performed, but the only information available in our hospital charts is the statement that surgery was scheduled.

DR. HOLMES: I suspected that. Is there any possibility of obtaining information as to what was found at the time of operation? If an aneurysm was found?

DR. STEFFEE: An aortic graft was done.

DR. HOLMES: Now, we will assume that there is some vascular disease there. His blood pressure was 170/100, which most people consider as some degree of hypertension in a 61 year old individual. The only other significant thing in the protocol are the transaminase studies increasing in three days to a significant 52 units. We also accept the electrocardiographic interpretation given here as positive of a posterior myocardial infarction. The treatment given here was about what you would expect in treatment of a myocardial infarction and the digitalization, in the absence of any other information, we would assume to be a prophylatic digitalization.

DR. JOHN CONWAY: I can give you that. He had paroxysmal atrial fibrillation with a very fast rate.

DR. HOLMES: With that little bit of information, there are several things that would need to be considered, some probably just considered and dropped. Acute nonspecific pericarditis presents with some of these findings,—chest and back pain and malaise, but the transaminase elevation is usually not found in this and it doesn't fit too well. We might also consider coarctation of the aorta as a real wild possibility, with the chest pain, the elevated blood pressure, presumably taken in the upper extremity, with some tiredness in his lower extremity, but I don't think too strongly of this. Myocarditis in the absence of any information of a large heart, we won't consider too much. However, sudden death does occur following a post-infectious myocarditis with congestive heart failure and/or sudden death. There is also the primary myxoma of the myocardium with fragmentary embolus to the coronary vessels which I think should be mentioned in any CPC. This is a very likely possibility.

I think that I am going to stick with the diagnosis of arteriosclerotic heart and vascular disease with a myocardial infarct. I don't think there is any question about the

presence of the infarct. The complications of myocardial infarction include rupture of any portion of the heart involved in the infarct, either of the intraventricular septum which is very often compatible with life; rupture of the ventricle which occurs anywhere from four days to two weeks, which would barely put us in this time limit; rupture of a papillary muscle which is associated with sudden death; and aneurysm of the ventricle with rupture, although these, so I have read, are not especially prone to rupture or at least not acutely. The presence of the aortic aneurysm must also be considered here. Exactly what type of aneurysm this is we are not sure. We haven't even been given the information that it is an aneurysm, but I think we can assume that it is. If this is a dissecting type of aneurysm, we must consider the possibility of a retrograde dissection, first involving the coronary ostia with infarct and subsequent rupture with sudden death. With that, I would think only of its distribution, as the pain usually is sharp and should be quite severe. The claustrophobia and the restlessness associated with dissecting aneurysm were noted only several years ago. I think that considering all of the vast amount of information that I have been given here, I feel that I am forced to stand on the diagnosis of arteriosclerotic heart and vascular disease with myocardial infarction. First, due to coronary arteriosclerosis, and as a second possibility, aneurysm, either dissecting or arteriosclerotic which has been grafted.

DR. STEFFEE: Thank you Dr. Holmes. That was an excellent example of seamanship of the CP type. Dr. Conway is one of the prime discussants, and he asked if he might discuss it after the pathologist's findings have been presented so I will now pass to Dr. Coors and ask him if he will discuss vascular surgery, surgery of aneurysms and replacement grafts, etc.

DR. GEORGE COORS: Thank you again for being primed though there ought to be another name for it. This obviously must be a degenerative disease of the vascular system with a resection in 1959 and then some sort of crisis in 1962. It must not be due to the heart or they would not have presented this in such a blasé manner. I can only assume that this man either had rupture or re-rupture of the aorta with dissection.

As far as the arterial work being done around here in Memphis and in other places, as you know they have replaced the homografts with plastic materials. The principal materials being used are Teflon and Dacron. They have gotten away from the knitted and taken on a woven appearance because of the wide spaces between the fibers which gives vascular access to the lining of the vessels. Before we had these new transplants or new plastic prostheses, we used Nylon or Orlon which could not be permeated by capillaries and they remained an unorganized portion of the vascular system; occasionally a lining would attempt to be formed and would shed off by exertion, by mild trauma, etc. The new grafts we are using now become completely encapsulated, become an integral part of the vascular system and for the most part, out-last any of the remaining vessels. As to longevity of these plastic grafts, there are now several cases in the neighborhood of eight years postoperative with no difficulty. These grafts pulsate, do not fragment, and would almost seem viable.

DR. STEFFEE: Thank you Dr. Coors. Is there any other discussion from the floor? One bait that I had thrown out in this case seems to be lying dormant so far. Is there the possibility that this man had cardiac arrest, secondary to his infarction rather than a hemopericardium? Does anybody want to make any comment on that?

DR. HOLMES: I'll bite on it by saying it's a possibility.

DR. CONWAY: I'll have to disqualify myself from the differential diagnosis discussion because of previous knowledge of the case. I would consider cardiac arrest a very likely explanation for the terminal event in this case. It is known that sudden death certainly when it occurs within the first few hours after an infarct is almost invariably due to cardiac arrest. This is usually ventricular fibrillation. Two other types of cardiac arrest that may complicate myocardial infarction are cardiac standstill or complete heart block, in which an idioventricular rhythm does not take over. It has been demonstrated repeatedly in this hospital in the past several months that cardiac arrest is not necessarily a terminal event. It is

now possible to favorably alter the mortality rate from acute myocardial infarction, and it is now an important part of its management to alert all personnel and to be sure that all facilities are available for the treatment of cardiac arrest as soon after the onset of myocardial infarction as possible.

DR. ASTE: Since you brought up this question about cardiac arrest, do you mean that you are going to be able to answer this on a pathologic basis, whether or not it was a cardiac arrest?

DR. STEFFEE: Yes, I can answer this. What that means in brief is, it wasn't.

DR. COORS: I would like to know one thing. You said he died suddenly. What do you mean by that—day, hour, or minutes.

DR. STEFFEE: At 8:15 A.M. he was found pulseless.

DR. CONWAY: His wife went out to brush her teeth and was gone about 15 minutes, and when she came back, he was dead.

DR. STEFFEE: Any other questions? Let us go on with the pathologic findings. Dr. Holmes did a magnificent job. He didn't fall for my "cardiac arrest" bait or my "aneurysm" bait. He hit it right squarely on the head. The patient had a hemopericardium because he blew out the myocardium. The first picture is the external surface of the heart (Fig. 1). You can see

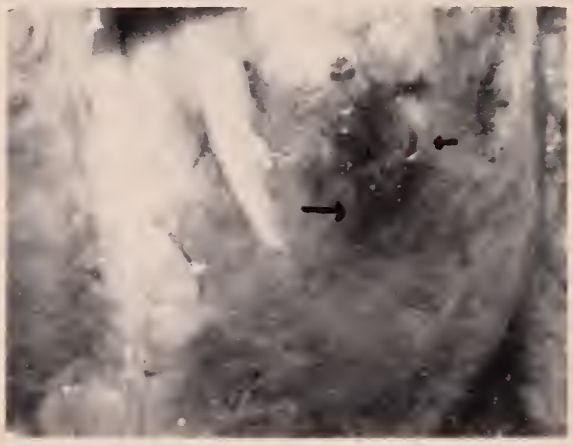


FIG. 1.

a rent here and a smaller one here (arrows). The next is a cross section, where you can see an area of hemorrhage here (Arrow—Fig. 2). The general appearance of the myocardium here is that of dead (yellowish) tissue, with areas of congestion or hemorrhage. The area of infarction is relatively small, but this does not preclude the possi-



FIG. 2.

bility of hemopericardium. With the next picture I would like to show you the appearance of the graft. This is a little tricky to get oriented, but I hope you recognize the "iliac bifurcation" of the graft (Fig. 3). The



FIG. 3.

interesting thing is this hematoma, essentially in the wall of the graft (large arrow), with mural thrombosis in the lumen of the vessel. There is a suture line here of a graft-to-graft suture (small arrow). Other sutures are obscured by the mural thrombus. Thus we have a disruption of the suture line with beginning dissection. This had not ruptured, but the only thing that cheated this fellow of dying from a ruptured aneurysm was the fact that his heart perforated first. There is a very thin layer of fibroblastic tissue around the outside of the

hematoma. This was actually the main reason that I picked this particular case because I had not seen a vascular prothesis disrupt in this particular fashion. I think actually, the suturing of graft-to-graft is a relatively unusual procedure in doing these prostheses. Do you agree with that Dr. Coors?

DR. COORS: As a rule, yes, unless you are going to make secondary bypasses.

DR. STEFFEE: Well, as I said, this was a very straightforward case. Are you ready now, Dr. Conway?

DR. CONWAY: It is now easy for one to speak with assurance. I should like to discuss briefly the question of myocardial rupture. This is a pretty rare occurrence. I don't know how rare it is, but judging from the literature the incidence of myocardial rupture in infarction is well under 5 per cent. Of deaths from myocardial infarction less than 10 per cent are due to rupture. Rupture has been reported to occur from two to twenty days after the clinical onset of infarction with a peak around the eighth day. In a series reported by Dr. Irving Wright of 8 cases of myocardial infarction treated with anticoagulants, 7 of these ruptured in less than four days after the onset of the infarction. The question of whether or not the use of anticoagulants is a predisposing factor in rupture has been raised repeatedly. I do not believe that it is settled at this time. It is of interest in the case under discussion, that though the infarct was relatively small, the perforation occurred three days after the onset of symptoms. Considering all of the evidence supporting the efficacy of anticoagulants in the treatment of myocardial infarction, I should not think that this would be a detering factor. A number of predisposing factors deserve consideration. Physical exertion seems well established as a predisposing factor to myocardial rupture. Some of the best material on myocardial rupture in infarction has been obtained from mental institutions, where the incidence of rupture is high due presumably to physical exertion. There is evidence that hypertension after the infarction is an important predisposing factor. First infarcts are more likely to perforate than others except when a fresh infarction is superimposed on a pre-existing infarct. The use of digitalis has been proposed as a predisposing factor, but there is no consistent evidence to support this. Older individuals are more likely to perforate than others. Large transmural infarcts are more likely to perforate than others.

As Dr. Holmes indicated, there are three general types of perforation. The perforation through the ventricular wall, such as this one, accounts for 80% of perforations. Septal perforations have an incidence of 3 to 20 per cent. The third most common type (not actually a perforation) is rupture of a papillary muscle. There have been about 40 cases reported in the literature. The clinical features of sudden onsets of cyanosis, severe intractable left-sided heart failure and the development of a loud murmur of bizarre and variously described characteristics make one suspect this possibility.

It is of interest that a patient of Dr. Warren Kyle survived rupture of the myocardium at this institution several months ago. This man who is 56 years of age, on the eighth day following his infarction had a recurrence of coronary pain, severe dyspnea, cyanosis, shock, and the development of a loud harsh murmur over the left border of the sternum accompanied by a thrill. A stormy course followed, but at about five weeks after the infarction, operation was undertaken. Two holes were found in the interventricular septum, one a large tear in the lower portion of the septum, the other a slit-like tear up higher. One was repaired with a patch and the other by direct suture. Surgery was successful and the patient is now back at work.

DR. STEFFEE: Dr. Kyle, would you like to discuss your case?

DR. KYLE: The operation was done on April 17, 1961. The first few films were made prior to the operation, and show cardiac enlargement and pulmonary congestion.

DR. CONWAY: This one shows the massive pulmonary congestion after the perforation.

DR. KYLE: Yes, that's right. These films after operation show clearing of the pulmonary congestion and decrease in the heart size. The last film in June, 1962, shows only slight cardiac enlargement. So, this man has done remarkably well. He still has a mur-

mur which is not as loud as before. We think he still may have a small leak, but it is not dynamically significant now. He is not receiving digitalis and there has been no evidence of failure since he left the hospital.

DR. STEFFEE: Are there any other comments or questions from the floor?

DR. A. MASON: Dr. Conway, do you think this man reported in the protocol tonight might have been better off if he had had antihypertensive therapy to bring the pressure down?

DR. CONWAY: I don't think so, especially because the pressure was such a labile thing after infarction. I would fear shock as a much more likely complication than rupture.

DR. STEFFEE: Dr. Priest, I would like for you to make any comments you might have on this.

DR. PRIEST: In my own experience hypertension following a mycardial infarction is seldom a problem. The insult to the cardiovascular system usually is accompanied by a decided decrease in systemic blood pressure. Persistence of hyperpiesia is then combated by mild sedation which is usually indicated in the face of acute myocardial infarction.

However, in the occasional patient, with severe hypertension prior to infarction and which persists, some action must be taken. Antihypertensive therapy during the acute phase should probably be as conservative as is consistent with moderate control of the hypertension. The attempt to lower the blood pressure to completely normal levels should not be made. The use of potent ganglionic blocking agents is probably contraindicated during the acute phase, or, if absolutely necessary, very cautious administration observed. It probably is not likely that a state of shock will be induced which cannot be controlled, but the sudden drop in blood pressure with consequent loss of velocity of the flow may be conducive to further thrombus formation.

The usual mild antihypertensive drugs can probably be used with a degree of impunity. Thiazide and rauwolfia drugs used in adjunct to mild sedation usually suffice.

I am much more concerned about controlling any hyperpiesia because of its inherent requirement of an increased myocardial work load than because of the possibility of myocardial rupture. Acute dilatation of an overloaded and partially destroyed myocardium with resulting myocardial insufficiency poses, by far, the most serious and frequent problem to be faced in these patients. While I do not wish to detract in any way from the gravity of rupture of the myocardium, its incidence, as compared with acute myocardial insufficiency and pulmonary edema, is certainly small.

DR. KYLE: One predisposing factor to rupture in our patient may have been related to trouble with his urinary tract. He had benign prostatic hypertrophy, and had had prostatitis prior to the infarct. He developed urinary retention immediately and he was up and down during the night trying to void. Later he had trouble with his catheter and this made for more agitation. I would like to say that Dr. Conway knows this case very well because he was in on it too and helped make the decision for operation.

DR. STEFFEE: I should mention one thing about the microscopic appearance of the myocardium in the autopsy case tonight, and that is that the hemorrhage is exclusively in areas of complete necrosis. It does not appear to be hemorrhage into a fresh uninvolved area, but rather hemorrhage into completely dead myocardium, associated with pyknotic and partially lysed neutrophils.

May I extend my thanks to Dr. Holmes and also to our "guest discussants." Thank you all.

President's Page



WILLIAM J. SHERIDAN, M.D.

In the present legislative apparent quietude one recalls the old aphorism, "The darkest hour precedes the dawn." We now patiently await the approach of the break of day on the political scene as our legislative bodies at both national and state levels oil and adjust their complicated machinery. As they go into their proverbial initial huddles, considerable interest and concern of ours center about that player trotting onto the field from the side lines. What play has the "coach" directed to be next tried? As anticipated? By force? By deception? Only time will tell!

This mundane analogy just about describes the present status of medical legislation. However, it is to be emphasized that this is no time to be resting on our oars. We must advantageously capitalize on this interim by now developing rapport with our respective legislators. Past experience has amply proven that our elected representatives appreciate the opportunity afforded by a frank expression of our views concerning proposed legislation which may influence and affect either advantageously or adversely the art and science of medicine. By thorough explanation and understanding of those tenets which we consider in the best interest of our patients and the public at large our legislators are in a better position to stand on a firm basis to arrive at equitable decisions as to the merits of those questions which their better judgment directs them to support or oppose.

It is the hope and desire of your President that mutual understanding and confidence between representatives of our State Association and the Executive branch of our State Government may be developed whereby avenues of communications may be opened to facilitate, from time to time, desirable adjustments in the various medical programs sponsored and administered by the State. Steps in this direction are being taken. Mutual cooperation in such endeavors far outweighs intermittent and oft ill-timed efforts and should serve to attain beneficial results to the satisfaction of both concerned parties.

William J. Sheridan, M. D.

President

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor and Secretary, 8210 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor and Secretary
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK

FRED B. BALLARD, JR., M.D.
BOYER M. BRADY, JR., M.D.
JOHN H. BURKHART, M.D.
W. DAVID DUNAVENT, M.D.
ROBERT P. MCBURNEY, M.D.
C. HAROLD STEFFEE, M.D.
HENRY B. TURNER, M.D.
BRUCE E. WALLS, M.D.
WENDELL W. WILSON, M.D.
R. H. KAMPMEIER, M.D.

FEBRUARY, 1963

EDITORIAL

DEAD MEN'S BLOOD

There have been many claims made by various Russians relative to having been the first to accomplish many diverse feats. It is a fact that the first experiments regarding the use of cadaver blood for transfusion purposes were performed in 1928 by Russians. This report was published in 1936. Following appropriate experimental work in dogs, cadaver blood for human transfusion was started in 1930. In 1937, a report was published upon 1000 transfusions given to humans in an Institute in Moscow during the years 1930-37.[1] A year later 2000 transfusions were reported. There was a 5% incidence of reactions and 7 deaths.

In 1960, Charpier,[2] of Chicago, reported the transfusion of 30 patients with cadaver blood, which he had done at intervals since 1930. However, the use of cadaver blood has received very little attention in this country, because of the excellent supply of blood available from living donors.

There are several evident advantages to the use of cadaver blood, if it is really a feasible procedure. (1) A number of units of blood can be obtained from one cadaver which would insure fewer chances of mismatching of minor blood groups. (2) No anticoagulant is needed. (3) Autopsies would give more detailed information relative to the health of the donor, particularly the status of his liver, sources of bacterial infection, communicable diseases and the like.

To obtain more detailed information in this technic, Moore, Pruitt and Meredith[3] from Bowman-Gray School of Medicine visited Russia. They interviewed Professor Shamov who had first used cadaver blood in dogs; Professor Tarasov, Director of the Institute in Moscow; surgeons who had used cadaver blood daily for years; hemotologists who operate the blood banks and who are investigating the problems of fibrinolysin in cadaver blood.

To date over 50,000 units of cadaver blood have been transfused. In 1959, 3,499 transfusions were given to 1820 patients; of this total 1948 units of cadaver blood were transfused from 375 cadavers. There were 22 minor reactions (chills or rash) and one major reaction due to an Rh mismatch. No deaths resulted.

The method of blood procurement is as follows: Within 6 hours after death, from whatever cause, the body is taken into a special room where strict sterile technic is employed. The internal jugular vein is isolated and cannulated. The carotid artery is also isolated and cannulated. The body is placed in extreme Trendelenburg position and approximately 4 pints of blood flow from the internal jugular vein. The carotid artery is then perfused with dextrose solution and about two more pints of blood are obtained. Because of the presence of an increase in the amount of fibrinolysin, no clotting will occur.

The group at the Bowman-Gray School of Medicine have followed this technic in obtaining blood from 9 cadavers. This blood was studied from the standpoint of a complete hematologic background, antiplasmin time, proteolytic determinations, and meas-

urement of tyrosine and serum protein content.

They believe this blood is usable. Their problems were procurement. In their 500 bed hospital they were able to obtain on an average only two donors a month, who were seen early after death and in whom there were no lacerations, abrasions, infections, cancer, or toxic alterations in the blood. This availability would be greater, of course, in an emergency hospital in a larger city, where numerous accident cases are received.

This is an interesting proposition. I suppose we should recognize the possible importance of this source of blood in a national emergency. By the same token we appreciate, even more, the effective procedures established in this country, which have in the past made available an adequate supply of blood from voluntary living donors. Long may they wave. A. W.

References

1. Shamov, V. N.: Transfusion of Blood of Cadaver, Arkh. Nov. Khir. 36:581, 1936.

2. Farmer, D. F.: Transfusions of Cadaver Blood, Bull. Amer. Assoc. Blood Banks 13:229, 1960.

3. Moore, C. L., Pruitt, J. C. and Meredith, J. H.: Present Status of Cadaver Blood as Transfusion Medium, Arch. Surg. 85:364, 1962.

DR. ANNIS IN TENNESSEE

"I am not appearing before you this morning to engage in a matter of controversy; I am here to speak to you on a matter of law," Dr. Edward R. Annis stated as he began his historic address to a joint meeting of the 83rd Tennessee General Assembly.

The President-Elect of AMA then spelled out the merits of the Kerr-Mills program, emphasizing that the legislature had already established the working machinery by enacting, in 1961, the bill which implemented the Kerr-Mills bill.

He stressed that through Kerr-Mills, the states could provide total medical care for the needy and the medically indigent, with dignity, and that the role of the federal government was one of providing dollars to the states on a matching basis.

There had been some question that Dr. Annis' unprecedented appearance before the Tennessee Legislature might be of such a controversial nature that the proponents of social security medical care financing would demand "equal time" to rebut.

The Legislators' interest was marked when Dr. Annis told them that, had the King-Anderson bill been enacted in the last Congress, Tennesseans would have sent to Washington an additional $31 million in increased social security taxes this year. And this in addition to the increase which went into effect automatically on January 1, 1963.

Interest was intensified when Dr. Annis told of the argument made by a King-Anderson proponent that had the bill been enacted, the Dade County, Florida hospital would have received a check for 1963 in the amount of $284,000. From official records, Dr. Annis was able to determine that for this $284,000 Dade County taxpayers would have sent to Washington $5,100,000 in increased social security taxes.

Reaction by the legislators, including legislative leaders, when asked for comment on the Annis address, followed this general pattern:

Question: What did you think of the speech?

Answer: One of the greatest I ever heard.

Question: In your opinion, did Dr. Annis say anything which would embarrass the administration or the legislature?

Answer: Indeed not! He helped us! We're going to make this Kerr-Mills program work in Tennessee!

The fact that Dr. Annis created an impact during his three-day visit to Tennessee is obvious. One need only to have been exposed to the coverage given by the news media. From the time of his first appearance, when he addressed the TSMA executive Conference for State and County Medical Society Officers, through his speeches given undergraduate college student bodies and faculties, his talk to a large civic club, his addressing the students and faculty of Nashville's two medical schools, the persons of the news media were constantly on hand.

The fact that the time of his appearances coincided with the legislative session was most advantageous. And, the fact that the man who speaks for the vast majority of the 197,000 physicians who are members of the American Medical Association was invited to address a joint session of the legis-

lature, was due to the untiring efforts of several physicians and the warm respect and friendship for the medical profession in Tennessee which exists on the part of Governor Frank Clement and the leaders of the legislature.

However, one must realistically attempt to evaluate the effectiveness of this effort. King-Anderson-type legislation and the national issue which it embodies will not be decided by the legislature of Tennessee. Furthermore, one must admit that not all members of the General Assembly were sympathetic to the philosophy which Dr. Annis espoused.

On the other hand, the success of Kerr-Mills program in Tennessee will be determined by the state administration and the Tennessee legislature.

As Dr. Annis said, in his closing remarks, "Perhaps my purpose in appearing before this august body this morning is to ask of you that you help your doctors take care of the people of Tennessee who become sick and need help. Not only people who have passed their 65th birthday, but our junior citizens, too.

"In so doing, you will greatly assist a noble profession which is dedicated, and is attempting to continue to do that which must be done in keeping with the highest traditions of the profession, and will continue to work toward adding not only years to the lives of our citizens, but life to their years."

Jack Drake

DEATHS

Dr. Harold A. Sparr, 70, Memphis, died January 21st as the result of a heart attack.

Dr. E. Miller Robinson, 64, Nashville, died January 13th at St. Thomas Hospital.

Dr. James McClure Richard, 86, Soddy, died December 22nd in a Chattanooga Hospital. He was a fifty-year member of the Chattanooga & Hamilton County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Memphis-Shelby County Medical Society

The regular meeting of the Society was held in the auditorium of the Institute of Pathology on January 15th. The scientific program consisted of the subject, "Diagnosis and Treatment of Childhood Rheumatoid Arthritis," by Bernard Rogoff, University of Cornell Medical Center, New York City.

Knoxville Academy of Medicine

The Society met for its monthly meeting in the auditorium of the Academy of Medicine Building on January 8th. The program consisted of a presentation by the Policy and Public Welfare Committee entitled "Choice of Medicine as a Career." The speaker was Dr. M. K. Callison, Dean, College of Medicine, University of Tennessee at Memphis.

Roane-Anderson County Medical Society

The regular monthly meeting was held on January 26th and the occasion was the annual Winter Dinner Dance of the Society held at the Holiday Inn, Oak Ridge. The affair was for the enjoyment of members and their wives. No formal business meeting was held.

Chattanooga-Hamilton County Medical Society

The Society met to install its officers on January 8th at the Chattanooga Golf and Country Club. Dr. M. F. Langston was installed as president, succeeding Dr. Edward G. Johnson, the outgoing president. Other officers who took office were Dr. C. Robert Clark as secretary-treasurer, and Dr. Edward T. Newell, Jr. as president-elect. The meeting was the largest attended annual meeting in the Society's history.

Sumner County Medical Society

The Sumner County Medical Society held its monthly meeting on December 7th at the Bluegrass Country Club. The occasion was a buffet supper honoring the Sumner County lawyers, dentists and pharmacists. Guest speaker was Dr. Jack Farringer, Nashville, who spoke on the subject, "Private Enterprises." Dr. W. M. Dedman was master of ceremonies for the occasion.

Marshall County Medical Society

The Society held its first monthly meeting of 1963 on January 8th in the Medical Arts

Clinic in Lewisburg. The program consisted of a one-hour film on the use of conjugated estrogens in the treatment of patients who have one or more myocardial infarctions.

Dr. J. W. Limbaugh, Lewisburg, has been named president of the County Medical Society; Dr. Hoyte C. Harris was named vice-president and Dr. W. S. Poarch, secretary.

Campbell County Medical Society

Members of the Campbell County Medical Society sponsored the annual dinner for members and their wives on December 17th at the Rogers Marina Restaurant. No program was presented but the Medical Society and the Auxiliary held short business meetings following dinner.

McMinn County Medical Society

The Society invited members of the Monroe County Medical Society as its guests at its recent meeting in Sweetwater. Dr. DeWitt James of Chattanooga, spoke on the subject "Pediatric Urology." At the business session, Dr. William Trotter was elected president. Dr. R. D. Hays was named vice-president and Dr. Roy Epperson was chosen secretary-treasurer.

The Society gave full approval of Dr. Trotter's nomination for Man of the Year for his outstanding work on the blood program in McMinn County.

NATIONAL NEWS

State of Union Message

President Kennedy, in his State of Union Message, made this statement about compulsory health care—"Our working men and women—instead of being forced to beg help from public charities—should start contributing now to their own retirement health program through the social security system."

In the President's budget message to Congress, he again emphasized health care anew. In reference to compulsory health care, Mr. Kennedy said he was renewing his request for benefits for the aged, financed under Social Security, "but with benefits for those not covered by Social Security to be paid from regular appropriations."

Closer Scrutiny Due Tax Exempt Organizations

The Internal Revenue Service declared it is "moving ahead with a greatly expanded enforcement program for exempt organizations in fiscal year 1963." This includes medical societies at all levels.

In a news release, the Service announced increased attention to tax exempt organizations as part of a new program to give greater attention "to areas of apparent noncompliance, including in particular various activities of exempt organizations."

The service stated that manpower limitations and attention to more productive revenue sources have been responsible for delayed IRS study of the exempt organization field.

Social Security System Continues in Red Says AMA Council

The U. S. Treasury Department's preliminary figures for the fiscal year ended June 30, 1962, shows that the Social Security system lost $1,248,000,000 according to the American Medical Association's Council on Legislative Activities.

OASI receipts reached a new high of $12,022,000,000 but rapidly rising expenditures rose to $13,270,000,000, according to the Council. News sources, the Council said, indicate that the Treasury Department does not expect to get the system into the black next year but estimates receipts at $14,120,000,000 and expenditures at $14,171,000,000.

The Council points out that despite increases in tax rates and in the tax base in recent years, Social Security lost money in 1957, 1958 and 1959, and adds that critics of the Social Security approach to health care of the aged have said repeatedly that the addition of a health care program with its unpredictable costs would jeopardize the entire Social Security structure.

MEDICAL NEWS IN TENNESSEE

Doctors' Team Ready for Algeria

Dr. Paul Spray, Oak Ridge orthopedic surgeon, announced that he has completed recruiting the ten-man doctor team he will

take to Algeria for a month's medical service. The team includes, in addition to Dr. Spray, Dr. Robert Bigelow and Dr. A. P. King of Oak Ridge, Dr. Dewey Peters, Knoxville, Dr. Walter Benedict, Knoxville, Dr. Robert Metcalf, Crossville, and Dr. Felix Line, Knoxville.

The team representing various medical specialists is sponsored by Medico, the medical organization developed by the late Dr. Tom Dooley to render service in underdeveloped countries.

New Assistant Named to TSMA Staff



Mr. Hadley Williams, Nashville, former assistant information director in the department of athletics, Vanderbilt University, has been employed by TSMA as an Executive Assistant. He assumed his new duties on February 1, succeeding C. P. Maguire who has resigned to accept the position of administrator of the Alfred Parker Smith Memorial Hospital in Winchester.

Mr. Williams' appointment was made by J. E. Ballentine, Executive Director. The new assistant has experience in a number of areas that coincide with similar activities of the Tennessee State Medical Association, including administration, organizational, Journal, and public service activities. He will serve as secretary to a number of important TSMA committees.

Williams attended public schools in Nashville, and received his B.S. degree from Peabody College. Immediately after graduating from college, he taught in the Davidson County school system. He is married and has two children.

Area Meeting of AAGP

The area meeting of the American Academy of General Practitioners was held on January 17th at the Johnson City Country Club. A symposium was presented on the subject, "Prevention of Trouble Instead of Preventive Medicine."

Mr. Harry Fortune, attorney, spoke on "Malpractice Suits and the Prevention of Them." Mr. William Graham, director of the local Internal Revenue Service addressed the medical group on the subject, "Income Tax Problems."

Attendants were from a five-county area surrounding Johnson City.

University of Tennessee School of Medicine

A total of $1,271,353 has been given to finance construction on the seven-story laboratory. The U. S. Public Health Service granted $961,353, the Dobbs Foundation gave $300,000 and James K. Dobbs, Jr., Memphis, added $10,000 in honor of his father. The building will be named the James K. Dobbs Medical Research Institute.

★

A grant of $961,000 was made by the Department of Health, Education and Welfare to help build a new 2 million-dollar research building.

★

Dr. Frank Ray Pitzer has been awarded an $8,000 federal grant for advanced study of malignant diseases. The grant was one of 108 awarded in the nation under a new training program of the U. S. Public Health Service.

★

The Institute of Pathology and the College of Dentistry have received a $172,000

grant from the Division of Chronic Diseases of the U. S. Public Health Service to support a program for the early detection of oral cancer.

★

A portrait of the late Dr. Charles Hunter Heacock, chairman of the Department of Radiology from 1938 until 1958, was presented to the University at a luncheon Jan. 24. It will be hung in the conference room of the new radiology building when the building is completed. Painted by Billie Price Hosmer, the oil painting was given to the University by former partners of Dr. Heacock in the Heacock-King radiologic group,—Drs. J. Cash King, John M. Wilson, David S. Carroll, Edward Mabry, William Mitchum, Hollis Halford, and William Long.

★

Ten Memphians have been appointed to the staff: Dr. W. L. Moffatt, instructor in the division of orthopedic surgery; Drs. Nelms Boone and Dr. George W. Martin, assistant professor, all in the department of pediatrics; Drs. Helen Key Van Fossen, Julio Goobar, Willie Ren Phillips and Phillip George, all instructors in the department of medicine; Drs. Billie Harold Putman and William H. Francher, as assistant professors, and Dr. Joe Paul Jones, instructor, in the division of anesthesiology.

Memphis Medical Center Grows in Facilities and Research

The 4.5 million-dollar Tennessee Psychiatric Hospital and Institute has opened its doors to the mentally ill. Completion of the 3 million-dollar St. Jude Hospital gave Memphis a research center for major children's diseases. The University of Tennessee Medical Units spent about 2.3 million dollars for research activities—an all-time high.

These and other highlights of the year, 1962, told a story of continuing growth in the Memphis Medical Center through expanded physical facilities and scientific study for benefiit of the sick in mind and body.

The University—affiliated Medical Center draws people from the Mid-South and throughout the world for diagnosis and treatment.

The new mental hospital marks the first phase of an estimated $7,750,000 project for research and care of the mentally ill.

Many other projects are on the way to completion. These include additional work at the St. Jude Hospital, the UT Dental-Pharmacy Research Building, construction at the Baptist Hospital's 3 million-dollar, 10-story building and construction is progressing at other institutions in the Medical Center area.

The Medical Center at Memphis is recognized as one of the outstanding in the nation.

University of Tennessee Memorial Research Center and Hospital

Construction has begun on the 1 million-dollar clinical research laboratory building at the University of Tennessee Memorial Research Center and Hospital in Knoxville. The announcement was made by Dr. McChesney Goodall, research medical director.

Cost of the laboratory is being paid by a $480,714 federal grant which was matched by the City of Knoxville, County and State contributions. Private organizations also contributed to the fund raising drive.

Meharry Medical College

The Department of Pathology presented its second lecture of the Merck Sharp and Dohme Lecture Series, "Race and The Incidence of Myocardial Infarction," by Dr. J. Owen Blache, Pathologist of the Department of Pathology, the Homer G. Phillips Hospital, St. Louis, on January 16.

On January 23, Dr. Robert S. Alexander, Professor of Physiology and Chairman of the Department of Physiology of Albany Medical College, delivered the 1963 Merck Sharp and Dohme Lecture in Physiology entitled "Hypotension and Shock."

On February 6, it presented a Public Health Lecture entitled "Some Unusual Carcinogenic Effects of N,N'-2, 7 Fluorenylenebisacetamide," by Dr. Harold L. Stewart, Chief of Laboratory of Pathological Anatomy, of the National Institutes of Health.

PERSONAL NEWS

Dr. James E. Hampton, Clarksville, announces the opening of his office at 107-5th Street—

ANNUAL MEETING

Tennessee State Medical Association

Andrew Johnson Hotel, Knoxville, April 7-10, 1963

Tennessee State Orthopaedic Society—April 6-7, University of Tennessee Research Hospital, Knoxville

ACTIVITIES CALENDAR INFORMATION

SUNDAY APRIL 7, 1963

(Tentative Times)		(Place)
9:00 A.M.	Registration for House of Delegates	Andrew Johnson Hotel
10:00 A.M.	Tennessee State Society of Anesthesiology	Carousel Room—Andrew Johnson Hotel
1:00 P.M.	Opening Session of House of Delegates	Colonial Room and Ballroom C—Andrew Johnson Hotel
2:00 P.M.	Tennessee Society of Plastic Surgeons (Business Meeting)	708 Blount Professional Building—Knoxville
2:00 P.M.	Woman's Auxiliary to TSMA (All sessions conducted in the Farragut Hotel—Registration—Hospitality—Arts and Crafts)	

MONDAY, APRIL 8

8:00 A.M.	Registration	Andrew Johnson Hotel
8:00 A.M.	Public Relations Breakfast	Andrew Johnson Hotel
9:00 A.M.	Exhibits Open	Lobby and First Floors—Andrew Johnson Hotel
9:00 A.M.	General Scientific Meeting	Johnson Hall—Andrew Johnson Hotel
10:00 A.M.	Woman's Auxiliary to TSMA (General Sessions)	Farragut Hotel
12:00 Noon	Tennessee Obstetrical & Gynecological Society (Luncheon and Meeting)	City Club—Knoxville
12:00 Noon	Tennessee Society of Pathologists (Luncheon and Meeting)	Carousel Room and Parlor A—Andrew Johnson Hotel
12:15 P.M.	Tennessee Radiological Society (Luncheon and Meeting)	Colonial Room—Andrew Johnson Hotel
12:15 P.M.	Tennessee Academy of Ophthalmology & Otolaryngology (Downtown-Chapman Highway) (Luncheon and Meeting)	Holiday Inn
12:15 P.M.	Tennessee Thoracic Society (Luncheon and Meeting)	Ballroom C—Andrew Johnson Hotel
1:00 P.M.	Tennessee Industrial Medical Association (Luncheon and Meeting)	S & W Cafeteria—Knoxville
1:30 P.M.	Tennessee State Pediatric Society (Scientific Meeting)	Knoxville Academy of Medicine Building
1:30 P.M.	Tennessee Academy of General Practice	Johnson Hall—Andrew Johnson Hotel
6:00 P.M.	Social Hour—TSMA	C'est Bon Club
7:00 P.M.	President's Banquet—TSMA	C'est Bon Club

TUESDAY, APRIL 9

8:00 A.M.	Registration	
8:30 A.M.	Woman's Auxiliary to TSMA—(General Meeting and Post-Convention Board Meeting)	Farragut Hotel
9:00 A.M.	Exhibits Open	Lobby and First Floors—Andrew Johnson Hotel
9:00 A.M.	General Scientific Meeting	Johnson Hall—Andrew Johnson Hotel
9:00 A.M.	House of Delegates (Second Session)	Colonial Room and Ballroom C—Andrew Johnson Hotel
12:00 Noon	Tennessee Diabetes Association (Luncheon and Meeting)	Carousel Room and Parlor A—Andrew Johnson Hotel
12:00 Noon	Tennessee Academy of Preventive Medicine & Public Health (Luncheon and Meeting)	Rose Room—Andrew Johnson Hotel
12:00 Noon	Tennessee Psychiatric Association (Luncheon and Meeting)	Therapeutic Village, Eastern State Hospital—Knoxville
12:15 P.M.	Tennessee Academy of Ophthalmology & Otolaryngology (Downtown-Chapman Highway) (Luncheon and Meeting)	Holiday Inn
1:30 P.M.	Tennessee Chapter, American College of Surgeons	Johnson Hall—Andrew Johnson Hotel
6:00 P.M.	Tennessee Chapter, American College of Surgeons (Social Hour and Banquet)	Johnson Hall—Andrew Johnson Hotel

WEDNESDAY, APRIL 10

8:00 A.M.	Registration	
9:00 A.M.	Exhibits Open	Lobby and First Floors—Andrew Johnson Hotel
9:00 A.M.	General Scientific Meeting	Johnson Hall—Andrew Johnson Hotel
9:00 A.M.	TSMA Board of Trustees Meeting	Rose Room—Andrew Johnson Hotel

Practice limited to Internal Medicine. Dr. Hampton has been recently certified by the American Board of Internal Medicine.

Dr. Albert L. Ball, Memphis, announces the removal of his office to Suite 230, Memphis Bank and Trust Building, 4515 Poplar Avenue, Memphis.

Dr. W. L. Goforth, Rogersville, has been elected chief of staff of the Hawkins County Memorial Hospital. **Dr. W. E. Gibbons** was named vice-chief and **Dr. W. H. Lyons** was re-elected secretary-treasurer.

Newly elected officers of the Executive Committee of the medical staff at Bristol Memorial Hospital are: **Dr. Joe Mitchell,** vice chief of staff; **Dr. T. W. Green,** chief of staff; **Dr. J. L. Stringfellow,** secretary-treasurer. In addition, **Dr. Harry Bachman, Jr.** was named chief of surgery; **Dr. W. F. Schmidt,** chief of medicine; and **Dr. W. H. Johnson,** chief of Ob-Pediatrics.

Dr. Chambless Rand Johnston, Nashville, announces the opening of his office for the general practice of Surgery, 2308 West End Ave.

Dr. Henry B. Gotten, Memphis, has been named president of the Citizens Association of Memphis and Shelby County.

New officers of the medical staff of Erlanger Hospital are: **Dr. M. F. Langston,** chief of staff; **Dr. Wesley Stoneburner,** vice chief of staff; **Dr. Harry Stone,** secretary; **Dr. Moore J. Smith, Jr.,** immediate past staff chief; **Dr. Charles Reavis,** chief radiologist; **Dr. Jack Adams,** chief pathologist **Dr. Augustus McCravey,** chief of surgery; **Dr. Harry Jones,** chief of obstetrics and gynecology; **Dr. Carl Hartung,** chief of medicine; **Dr. Preston McDow,** chief of general practice; and **Dr. Eleanor Stafford,** chief of pediatrics.

Dr. Daniel F. Fisher, Memphis, has been elected chief of staff for the Memphis Eye, Ear, Nose and Throat Hospital.

Dr. Joseph C. Mobley, Memphis, has been elected president of the Memphis Obstetrical and Gynecological Society. Also elected were **Dr. Orin L. Davidson,** vice president; **Dr. J. Earl Baker,** secretary and **Dr. Gordon K. Rogers,** treasurer.

Dr. W. G. Lyle, Clarksville, has been elected chief of staff for Memorial Hospital. **Dr. James McKnight** was elected chief of surgery; **Dr. R. C. Koehn, Jr.,** chief of obstetrics and gynecology; **Dr. Charles A. Trahern,** chief of medicine.

Dr. J. C. Bradshaw, Lebanon, has been named president of the Wilson County Medical Society.

Dr. Alys H. Lipscomb, Memphis, recently addressed the Memphis Methodist Hospital Auxiliary. **Dr. John J. Lentz,** Nashville, has been re-elected for a four-year term as director of the Davidson County Health Department.

At a recent meeting of the Jefferson City Memorial Hospital, **Dr. S. C. Fain** was re-elected chief of staff; **Dr. O. L. Merritt,** vice chief of staff; **Dr. J. B. Sams,** chief of medical services; **Dr. O. L. Merritt,** chief of surgical services; and **Dr. John Ellis** was re-elected secretary.

Dr. M. W. Latham, Jr., Memphis, is the new president of the Gartly-Ramsey Hospital medical staff, succeeding **Dr. D. C. McCool.**

Dr. C. H. Webb, Tullahoma is the new chief of staff at Coffee County Hospital in Manchester.

Dr. Harold L. Neuenschwander, Knoxville, has been named chief-elect of the staff at St. Mary's Hospital. **Dr. J. E. Acker, Jr.** will become chief of staff for 1963.

Dr. J. A. Crisler, Jr., Memphis, announced his retirement from medical practice on January 1.

Dr. DeWitt James, Chattanooga, recently addressed the McMinn County Medical Society in Sweetwater.

Dr. Odon F. von Werssowetz, Chattanooga, announces the opening of his office in the Interstate Building with practice limited to disorders of motion, diseases of muscles and joints and rheumatology.

Dr. L. S. Graham, Nashville, anounces his association with Doctors T. C. Delvaux, Jr., F. C. Womack, D. K. Gotwald and J. M. Phythyon in the practice of Clinical and Anatomic Pathology, The Pathologists' Laboratory, Mid State Medical Center.

The following physicians were advanced to Fellowship in the American College of Physicians at November's meeting of the Board of Regents: **Dr. Joseph E. Acker, Jr.,** Knoxville; **Dr. Norman Ende,** Nashville; **Dr. Leo G. Horan,** Memphis; **Dr. Grant W. Liddle,** Nashville; **Dr. Ralph W. Massie,** Nashville; **Dr. Lloyd H. Ramsey,** Nashville; **Dr. John Thomas,** Nashville and **Dr. Richard L. Wooten,** Memphis. The following were elected to Associateship, **Dr. David H. Law,** Nashville, **Dr. Sol A. Rosenblum,** Nashville, and **Dr. Nat Henderson Swann,** Chattanooga.

ANNOUNCEMENTS

Calendar of Meetings

1963

State

February 21—Postgraduate Day, "Psychologic Problems in Childhood," Vanderbilt University School of Medicine, Nashville.

February 25-26—Fifth Annual Workshop of Tennessee Inhalation Therapists Association, Vanderbilt University Law School Auditorium, Nashville.

February 28—Postgraduate Day, "Fractures in the Senior Citizen," Vanderbilt University School of Medicine, Nashville.

March 7-8—Postgraduate Course, "Urinary Tract Diseases—Diagnosis and Treatment," University of Tennessee College of Medicine, Memphis.

March 21—Postgraduate Day, "Cerebral Palsy Current Concepts and Therapy," Vanderbilt University School of Medicine, Nashville.

April 7-10—Tennessee State Medical Association Annual Meeting, Knoxville.

Regional

February 16-17—Postgraduate Course, "Psychiatric Aspects of Certain Physical Disorders," University of Indiana Medical Center, Indianapolis, Indiana.

February 21-23—Central Surgical Association, Chicago, Illinois.

February 24—Regional Meeting of State Chairmen of Committees on Occupational Health, Dinkler-Tutwiler Hotel, Birmingham, Alabama.

March 12-14—Postgraduate Courses, "Gynecologic Problems in Private Practice" Medical College of Georgia, Augusta, Georgia.

March 18-21—Southeastern Surgical Congress, Miami Beach, Florida.

March 22-27—North American Clinical Dermatological Society, Diplomat, Hollywood, Florida.

March 28-30—Fourth Colloquy on Advances in Medicine, Pulmonary Insufficiency, University of Oklahoma, School of Medicine, Oklahoma City.

April 1-5—Thirty-Sixth Annual Spring Congress in Ophthalmology and Otolaryngology sponsored by the Gill Memorial Eye, Ear, Nose and Throat Hospital, Roanoke, Virginia.

National

February 28-March 3—College of American Pathologists, Houston, Texas.

February 28-March 4—American College of Cardiology, Los Angeles, California.

March 11-14—American College of Surgeons, Pittsburgh, Pennsylvania.

March 17-22—American College of Allergists, New York City.

March 29-31—American Society of Internal Medicine, Denver, Colorado.

March 29-April 5—American Academy of General Practice, Chicago, Illinois.

April 1-5—American College of Physicians, Denver, Colorado.

June 16-20—American Medical Association Annual Meeting, Atlantic City, New Jersey.

Physicians Recently Licensed in Tennessee

Creighton L. Wilson, Jr., Knoxville
Ben I. Smaller, Corbin, Kentucky
Julius J. Matzelle, Nashville
James W. Green, Nashville
Benjamin H. Robbins, Jr., Nashville
Michael A. Bokat, Nashville
David M. Hurst, New Orleans, La.
George E. Allen, Memphis
Joseph C. Boals, III, Memphis
Roy C. Ellis, Jr., Nashville
Lovely A. Free, Memphis
Kenneth W. Marmon, Nashville
Bobby G. Norwood, Nashville
Earl F. Rich, Nashville
Curtis W. Van Hooser, Memphis
Charles W. White, Memphis
James G. Middleton, Memphis
David Meyer, Nashville
Stanley S. Schwartz, San Francisco, Calif.
Bill C. Weber, Memphis
John T. Crews, Memphis
Harriet M. Harman, Nashville
Robert O. Bateman, New Orleans, La.
Madison H. Buckley, Memphis
Carroll W. McGinnis, Knoxville
George W. Davis, Jr., Nashville
Jacob Wachtel, Birmingham, Ala.
Lathan A. Crandall, Jr., Mandeville, La.
Alexander E. Harvey, Murfreesboro
William O. Miller, Monroe, La.
John D. Lay, Adamsville
Richard A. Essman, Memphis
James S. Hastie, Nashville
John L. Swann, Columbia
Bryan A. Michaelis, Concord
Patrick R. O'Connor, Jackson, Miss.
Oliver L. Jones, Jr., Nashville
Robert B. Avery, Ann Arbor, Mich.
Edgar E. Marlow, Jr., Roanoke, Va.
Robert C. Barker, Memphis
David L. Cox, Memphis
Jerry D. Fraim, Memphis
Eloiett Johnson, Memphis
John C. Neale, III, Mountain Home
Edward M. Reaves, Memphis
Fenton L. Scruggs, Chattanooga
David T. Watson, Knoxville
Herman A. Crisler, Jr., Memphis
David C. Cawood, Memphis
Bill N. Riggins, Knoxville
Winfred N. Shelton, Memphis
Robert C. Northcutt, Nashville
Wm. B. Wetherington, New Orleans, La.
Wilbur A. Heinz, Jr., Lexington, Ky.
John L. Blanton, Baltimore, Md.
Robert R. Henderson, Roanoke, Va.
James B. Wiley, Jr., Memphis
Jesse F. Adams, Portsmouth, N. H.
Ralph Gambrel, Rogersville
Elwyn Alva Saunders, Nashville
Charles Robert Moore, Houston, Texas
Hilda J. Walters, Gatlinburg
Maurice M. Acree, Jr., Memphis
Richard W. Carpenter, Nashville

Tennessee Inhalation Therapists Association Annual Workshop

The Tennessee Inhalation Therapists Association will meet on February 25-26 at the Vanderbilt University Law School Auditorium in Nashville. This is the 5th Annual Workshop. The session is co-sponsored by the Andrew Jackson Academy of General Practice and the Tennessee Hospital Association.

This institute is acceptable to the American Academy of General Practice for 12-hours of Category I Credit. Registrar: John L. Rewis, c/o Baptist Hospital, 2000 Church Street, Nashville, Tennessee.

Meharry Medical College

Dr. Benjamin Castleman, Chief of the Department of Pathology, Massachusetts General Hospi-

tal and Professor of Pathology, at Harvard Medical School will speak to the Medical community on Monday, February 25 at 2 p.m. on "Clinicopathological Aspects of Hyperparathyroidism." This lecture will be held in the Public Health Lecture Hall at Meharry.

Postgraduate Course on Current Concepts in Therapy of Cerebral Palsy

The Department of Orthopedic Surgery is offering a one day course on the Current Concept in Therapy of Cerebral Palsy on March 21. The program will consist of demonstration of current practices in the Vanderbilt University Cerebral Palsy Clinic with emphasis on comprehensive case planning and therapy. The course material will be suitable for physicians, physical therapists, occupational therapists, hearing and speech therapists, medical-social workers and clinic administrators. The indications for surgical treatment will be discussed and presentation of special techniques in bracing will be given.

The United Cerebral Palsy of Middle Tennessee is making it possible for professional workers in cerebral palsy to participate in this course. Their registration fee will be paid by United Cerebral Palsy of Middle Tennessee if requested by the applicant.

Postgraduate Course in Psychiatry at Vanderbilt University School of Medicine

The Department of Psychiatry is offering a one-day Postgraduate Course on Thursday, February 21, to be held at Vanderbilt University Hospital, beginning at 9 a.m. on the topic of "Psychologic Problems in Childhood." The range of "normal" behavior in children of various ages is so wide that the recognition and diagnosis of emotional illness in this group presents many difficulties. The identification of the sources of disturbance is often even more complex. Treatment of such illness frequently demands a coordinated team of trained workers. As a method of outlining the problems involved it is planned to demonstrate the methods of operation of the Child Psychiatry Unit at Vanderbilt. By this means they hope to illustrate currently accepted ideas which have wide applicability in recognition, diagnosis and treatment of the emotionally disturbed child.

The Course is approved for Category I credit by the American Academy of General Practice. Tuition is $15.00, which includes the luncheon. For further information address the Department of Postgraduate Instruction, Vanderbilt University School of Medicine.

Postgraduate Course in Orthopedics at Vanderbilt University Scool of Medicine

The Department of Orthopedic Surgery is offering a one-day Postgraduate Course on Thursday, February 28, to be held at Vanderbilt University Hospital, beginning at 9 a.m. on the topic of "Fractures in the Senior Citizen." The subjects to be discussed will include the fractures occurring commonly, and in some cases, almost exclusively in the Senior Citizen, and the anesthetic and medical considerations pertinent to these problems.

The Course is approved for Category I credit by the American Academy of General Practice. Tuition is $15.00 which includes the luncheon. For further information address the Department of Postgraduate Instruction, Vanderbilt University School of Medicine.

Southeastern Surgical Congress

The 31st Annual Meeting of the Southeastern Surgical Congress wil be conducted at Miami Beach, March 18-21 in the Americana Hotel. For further information, write: Southeastern Surgical Congress, 340 Boulevard, N.E., Atlanta 12.

Arthritis and Rheumatism Foundation

Valuable assistance is available to doctors in literature and booklets describing vocational aids and instruments for self-help for patients crippled by arthritis. For further information address The Middle-East Tennessee Chapter, Arthritis and Rheumatism Foundation, 1719 West End Avenue, Nashville.

American Board of Obstetrics and Gynecology

The next scheduled examination (Part II), oral and clinical, will be conducted for all candidates at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board, April 29-May 4, 1963. Formal notice of the exact time of each candidate's examination will be sent him or her in advance of the examination dates.

Diplomates are requested to keep the Board office informed of a change in address. Office of the Secretary: Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville 5, Tennessee.

Locations Wanted

A 38 year old general practitioner, with residency training in surgery, would like clinical, assistant, industrial or institutional practice in any size community of Tennessee. Graduate University of Virginia; married; Protestant. Available now. L-446

◆

A 30 year old Dermatologist would like clinical or associate practice, with part-time teaching, in West Tennessee town of any size. Graduate of University of Texas Medical Division; married; Episcopalian; available July 1963. LW-447

◆

A 32 year old Board eligible surgeon (general and Thoracic) graduate of Tulane Medical School, presently in the Air Force, would like associate or solo practice in any town or city in Tennessee over 40,000. Married; Methodist; available August 1963. LW-456

◆

A 30 year old Ob-Gyn, graduate of University of Kansas School of Medicine, with three years residency training, would like associate practice in city of 100,000 plus. Married; Protestant; now on active military duty. Available July 1963. LW-468

◆

A 30 year old General Practitioner, now in military service, would like clinical practice in East or Middle Tennessee locality with 1,500 to 10,000 population. Married; graduate Duke University. Available June 1963. LW-478

◆

A 40 year old Board certified Radiologist, graduate of the University of Frankfort, Germany, would like clinical, institutional or associate practice in East or Middle Tennessee area, any size community. Five years residency training; citizen of U.S. Available at anytime. LW-479

◆

A 37 year old Pediatrician, now in residency, would like associate practice in city 10,000 plus; no preference as to location. Graduate of the Medical College of South Carolina. Available May 1963. LW-480

◆

An Ophthalmologist, now in residency training, would like associate or private practice with no preference as to size of location. Age 37; married; Methodist. Graduate of the Medical College of Virginia. Available July 1963. LW-481

◆

A 31 year old Psychiatrist, now in residency training, would like clinical, institutional, or solo practice in any size community of Tennessee. Prefers Middle Tennessee but would consider other sections. Graduate of Vanderbilt School of Medicine; Baptist; married. Available July 1964. LW-482

◆

A 32 year old Ob-Gyn, graduate of the University of Tennessee Medical School, would like clinical, associate, or group practice in any community of Tennessee of 15,000 to 50,000 population. Methodist. Married. Now in residency training, available Sept. 1963. LW-483

Physicians Wanted

A physician in East Tennessee would like to share his office and equipment with an associate General Practitioner. Population over 2,000; good housing facilities available; good schools. Hospital within 15 miles. PW-169

◆

Hospital in upper east Tennessee county with population of over 30,000, would like general surgeon to establish own surgical practice in area. Would like physician with one year internship, three years residency, Board qualified or preferred. Good industrial area with excellent housing, schools, and churches. Near TVA lakes. PW-173

◆

FOR SALE: Good medical practice and new, modern, centrally heated and air-conditioned, fully equipped office in uptown located building, in middle Tennessee town of 10,000. Trade area 30,000. Financing can be arranged. Owner desires to retire from private practice. PW-174

◆

General practitioner in Middle Tennessee town of 1,200 (trade area over 8,000) would like an associate with at least 2 years residency in general surgery, and not over 45 years of age. Good schools, near excellent recreational facilities, housing and office space adequate. Some office equipment available. PW-175

◆

Small town in northern part of the state in great need of physician. This area approved by Sears-Roebuck Foundation for assistance in establishing clinic or hospital. No other physician in area. Medical economic survey report excellent; available upon request. PW-177

◆

One or more physicians needed in east Tennessee community of 15,000 population. Housing, office space, schools good. Some equipment available. Recreational facilities in area. Hospital 17 miles. PW-178

◆

Physician in east Tennessee city of 200,000 needs general practitioner for assistant practice in 27 bed private hospital. One year internship desired. Office space and office equipment provided. PW-181

◆

Middle Tennessee town of over 12,000 population would like physician as replacement in clinic. General practitioner, with surgical experience preferred, but not required. Housing, office space and equipment available. PW-188

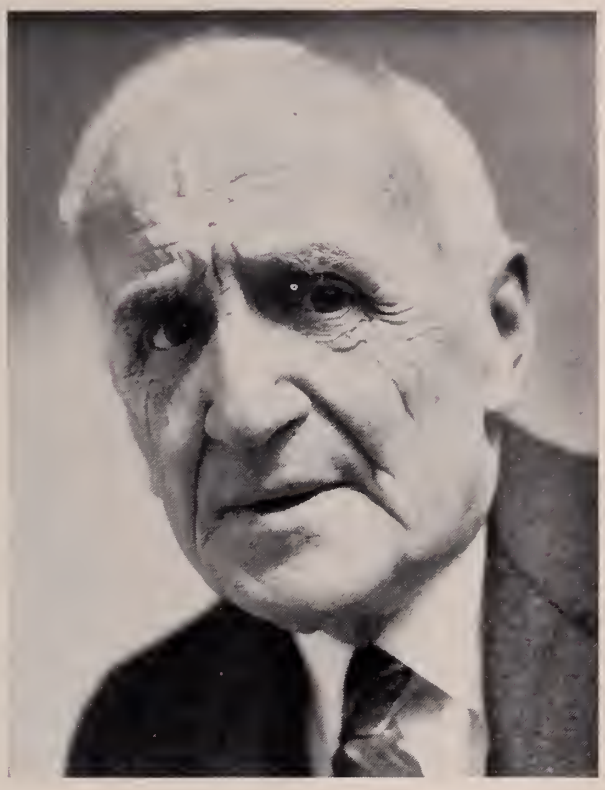
◆

FOR RENT—Building for clinic in heavily populated section of large metropolitan city. Ample space for one or two physicians. Parking space available. PW-189

◆

Would like Ob-Gyn or Pediatrician to establish own practice, will build clinic or office building to specifications. Location on main thoroughfare, all facilities available. PW-190





BULK IS BASIC in geriatric constipation

METAMUCIL®

adds tone to the atonic colon

Metamucil, refined hydrophilic mucilloid, is especially suited to correct the kind of constipation most frequently encountered in elderly patients.

Metamucil adds soft bulk to the often inadequate diets of older persons and supplies the gentle intracolonic pressure needed to induce normal peristaltic action.

This true physiologic stimulus increases muscle tone, encourages normal reflex activity and helps reestablish the natural rhythmic function of the bowel. Only a soft bulk stimulus like Metamucil offers such natural encouragement to normal evacuation.

Metamucil is available as Metamucil powder in 4, 8 and 16 oz. containers and as lemon-flavored Instant Mix Metamucil in cartons containing 16 and 30 single-dose packets.

METAMUCIL®

brand of psyllium hydrophilic mucilloid

G. D. SEARLE & CO.

CHICAGO 80, ILLINOIS

Research in the Service of Medicine

In intestinal "grippe"

prompt 4 way check of diarrhea

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis



POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*
Sulfaguanidine U.S.P. ... 2 Gm.
Pectin N.F. ..... 225 mg.
Kaolin ..... 3 Gm.
Opium tincture U.S.P. ...0.08 cc.
(equivalent to 2 cc. paregoric)

DOSAGE: **Adults:** Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz. (raspberry flavor, pink color)*
Exempt Narcotic. Available on Prescription Only.

Winthrop LABORATORIES
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.



Solfoton®

for mild, continuous sedation

Each tablet (or capsule) contains 16 mg. phenobarbital blended with 65 mg. Bensulfoid®. The Bensulfoid is an inert diluent present to permit slow absorption of the phenobarbital. The usual dosage is one tablet or capsule after meals and at bedtime. Solfoton is especially adapted to prolonged use because of its virtual freedom from depression and other side effects. Contra-indications: identical to those of ¼ gr. phenobarbital.

REFER TO PDR

Poythress, White Section, Page 808 (1963 edition) and Product Identification Section

COMPLETE INFORMATION AND CLINICAL SAMPLES SENT UPON REQUEST

Dispensed in bottles of 100 and 500 tablets or capsules

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS and SYMPTOMS**: Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS**: Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT**: Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE STATE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN
1104 Sudekum Bldg.
Nashville, Tenn.

SETH W. SIZER
1211 James Bldg.
Chattanooga, Tenn.

THERON M. LEMLY
1309 Poplar Ave.
Memphis, Tenn.



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE-MARK

BRAWNER HOSPITAL, INC.
(Established 1910)
2932 South Atlanta Road, Smyrna, Georgia
FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION
MODERN FACILITIES
Jas. N. Brawner, Jr., M.D.
Medical Director
Aloysius I. Miller, M.D.
Mark A. Gould, M.D.
Phone HEmlock 5-4486

AMEF
A Symbol to Support . . .
American Medical Education Foundation
535 N. Dearborn St., Chicago 10, Ill.

ACCEPTED AMERICAN MEDICAL ASSN.
HOMOGENIZED VITAMIN D MILK PRODUCES SOFT CURD
(400 U.S.P. Units Vitamin D Per Quart)
"A" Grade
Sealtest MILK
Phone AL 5-6451
Fortified Fat Free Milk
(2000 Units Vitamin A—400 Units Vitamin D)
NASHVILLE PURE MILK CO.



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

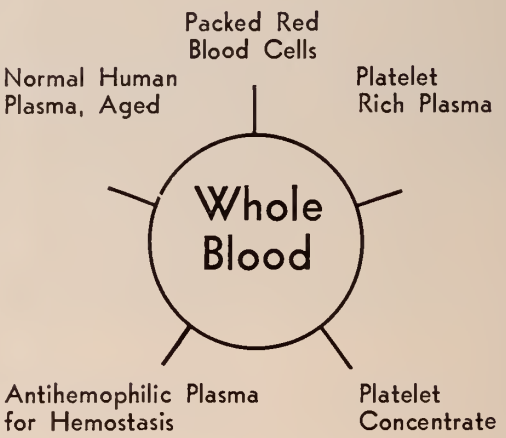
- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN
Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities
KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

WOULD YOUR OFFICE RENT STOP . . . IF YOU WERE HOSPITALIZED FOR SIX MONTHS?

Of course not! That's just one of the reasons why wise physicians and dentists take advantage of broad new benefits available in our "Loss of Time" policy.

We pay YOU each month when you are hospitalized or disabled.

For full details, at no obligation, simply send the coupon below.

PHYSICIANS MUTUAL INSURANCE CO.
formerly
Physicians Casualty and Health Associations
"The Doctors Company"
Insuring Physicians & Dentists for 60 years.

Physicians Mutual Insurance Company
115 So. 42nd Street
Omaha 31, Nebraska

Please send details on your "Loss of Time" policy.

NAME_____ AGE_____

ADDRESS_____

CITY_____ STATE_____

Revised Plan Increased Benefits For Accident and Sickness Available To Members of The Tennessee State Medical Association

Who Can Qualify for This Insurance

Ordinary Accident Benefit	Total Ordinary Accident and Hospital Benefit
$600.00 Per Month	$1,200.00 Per Month (3 months)

Monthly Benefits are payable from the First Day of Disability and will be paid during your entire lifetime as long as totally disabled from accident.

Sickness Benefit	Total Sickness and Hospital Benefit
$600.00 Per Month	$1,200.00 Per Month (3 months)

Sickness Monthly Benefit ten years certain if totally disabled.

General Provisions

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.00
May be written from $100.00 to $600.00 per month inclusive
Monthly Accident Benefits from First Day
Monthly Sickness Benefits from First Day
May also be issued with elimination periods, if desired
Individually NON-CANCELLABLE EXCEPT for—

- Non-Payment of Premium
- Retired from Practice
- Loss of Membership in The Tennessee State Medical Association

Guaranteed Renewable to age 70 Renewable thereafter at the option of the Company.

Sovereign States Insurance Company

1808 WEST END AVENUE
NASHVILLE, TENNESSEE

For full information without obligation, contact our Home Office, 1808 West End Avenue, Nashville

Professional Department, Sovereign States Insurance Co.

Please send complete information relative to program offered in The Tennessee Medical Journal.

NAME _____ AGE _____

ADDRESS _____ TOWN _____

"A Participating Insurance Company Underwriting the Tennessee Plan"

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply & Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

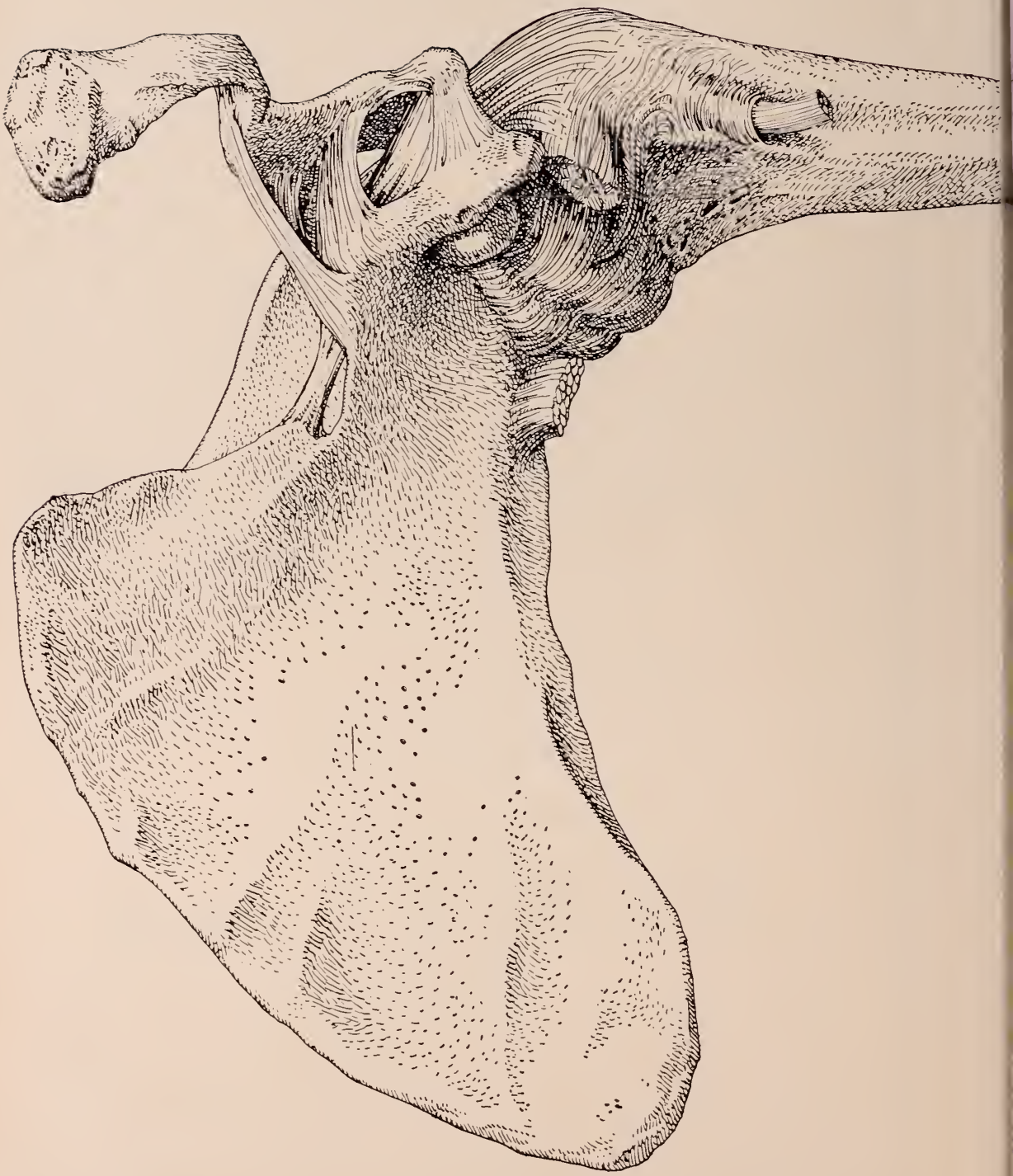
Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

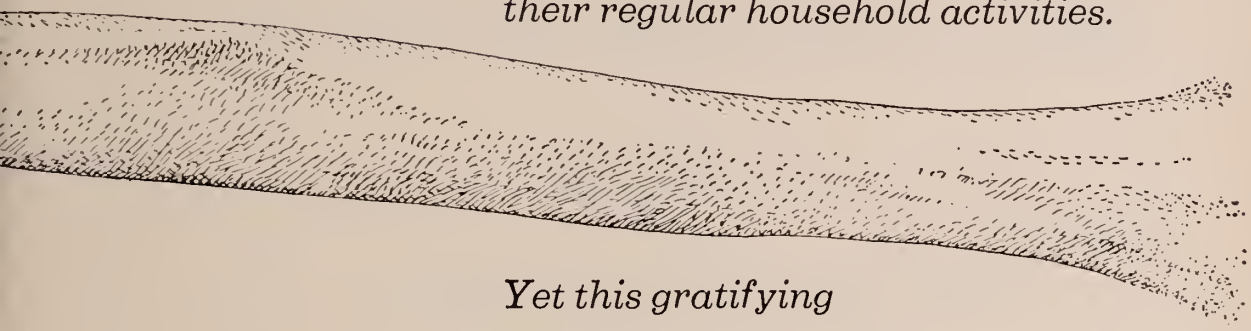
Phone AL 5-4601

gratifying relief fo



ainful joints

With ARISTOCORT, *patients with painful, arthritic joints obtain rapid reduction of pain and inflammation, as well as substantial improvement in joint mobility. Many patients who might otherwise be confined in a state of invalidism have been able —with* ARISTOCORT—*to continue their customary livelihoods or go about their regular household activities.*



Yet this gratifying symptomatic relief may not be accompanied by severe hormonal collateral effects, such as sodium retention, edema, emotional disturbance, insomnia or voracious appetite—that may prevent patients from obtaining corticosteroid benefits.

unsurpassed for total patient benefits

Aristocort®

Triamcinolone Lederle

SUPPLIED: Scored tablets (three strengths), syrup, parenteral and various topical forms. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle

LEDERLE LABORATORIES
A Division of American Cyanamid Company
Pearl River, New York

Tennessee State Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

Underwritten By

Commercial Insurance Company

Newark, New Jersey

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

HIGHLAND HOSPITAL, INC.

FOUNDED IN 1904

ASHEVILLE, NORTH CAROLINA

Affiliated with Duke University





A nonprofit psychiatric institution, offering modern diagnostic and treatment procedures—insulin, electro-shock, psychotherapy, occupational and recreational therapy—for nervous and mental disorders.
The Hospital is located in a 75-acre park, amid the scenic beauties of the Smoky Mountain Range of Western North Carolina, affording exceptional opportunity for physical and emotional rehabilitation.
The OUT-PATIENT CLINIC offers diagnostic services and therapeutic treatment for selected cases desiring non-resident care.

R. CHARMAN CARROLL, M.D.
Medical Director

ROBERT L. CRAIG, M.D.
Associate Medical Director

JOHN D. PATTON, M.D.
Clinical Director

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE STATE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

TAYLOR ROBINSON INS. AGENCY
JACKSON, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Available to Members Who Qualify

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY

Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
25/75	76.61	183.31
50/150	84.67	202.61
75/225	89.60	214.40
100/300	92.29	220.83

X-RAY—RADIUM OR SHOCK THERAPY

5/15	89.60	152.00
25/75	153.22	259.92
50/150	169.34	287.28
75/225	179.20	304.00
100/300	184.58	313.12

1. Partnership liability, increase premium for each partner by 20%
2. Obstetricians and Gynecologists take Surgeons rates
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Higher limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability

*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

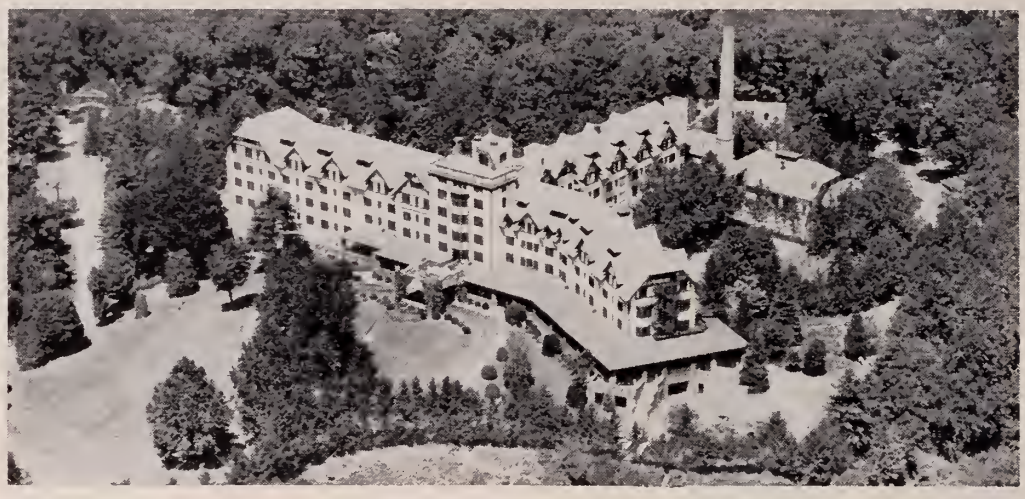
James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James K. Ward, M.D.
Phones WOrth 1-1151

A few positions on the Medical Staff of the Kennedy Veterans Administration Hospital, Memphis, Tennessee, are now available to physician applicants. These vacancies exist in the Medical Service, which includes Pulmonary Diseases, and General Medicine in the Admitting-Outpatient Service. Physicians salaries are commensurate with professional qualifications and experience. Board certification permits 15% additional salary. V.A. benefits include family hospitalization plan, with medical and surgical coverage, Federal Life Insurance, periodic pay increases, regular working schedules, and liberal retirement factors. Interested physicians may write the Chief of Staff, Kennedy Veterans Administration Hospital, Memphis 15, Tennessee.

APPALACHIAN HALL
Established 1916

Asheville North Carolina



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

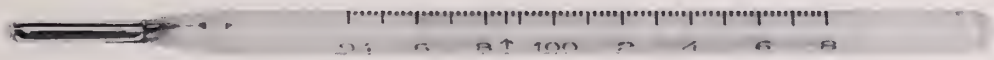
WM. RAY GRIFFIN, JR., M.D. MARK A. GRIFFIN, SR., M.D.
ROBERT A. GRIFFIN, M.D. MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

Abbott Laboratories	XI, XII	Lilly, Eli and Co.	I, XXXVIII
American Cyanamid Co.	XV, XXXVI, XXXVII, XLVIII, XLIX	Mayrand, Inc., Pharmaceuticals	X, XXXIV
		Mutual Benefit Life Ins. Co.	XLII
AMEF	XLIII	Nashville Pure Milk Co.	XLIII
Ames Co., Inc.	LV	Nashville Surgical Supply Co., Inc.	XLVII
Appalachian Hall	LIV	Parke-Davis and Company	II, III
Arnar-Stone Laboratories, Inc.	IX, XXV	Pfizer Laboratories	XVI, XVII
Birtcher Medical Electronics	XXVI	Physicians Mutual Ins. Co.	XLV
Blood Bank Foundation	XLIV	Poythress, Wm. P. & Co.	VI, XLI
Brawner Hospital, Inc.	XLIII	Robins, A. H., Co., Inc.	XXI, XXIX, XXX, XXXI
Brayten Pharmaceutical Company	XIII	Roche Laboratories	LVI
Bristol Laboratories	XVIII, XIX	Roerig	XXII, XXIII
Burroughs Wellcome & Co.	XXIV, XXXII	St. Albans	XXVIII
City View Sanitarium	XLV	Saunders, W. B. Company	VII
Coca-Cola	XLIII	Searle, G. D. & Co.	XXXIX
Farringer & Company	LII	Smith, Kline & French Laboratories	VIII
First Texas Pharmaceuticals, Inc.	XX	Smith, Reed, Thompson & Ellis Co.	L
Guild Opticians	LI	Sovereign States Ins. Co.	XLVI
Highland Hospital, Inc.	LI	Tafel Surgical Supply Co., Inc.	XLV
Hill Crest Sanitarium	LIII	Today's Health	XXVI
Kay Surgical, Inc.	XLIV	Wallace Laboratories	XXV, XXVII, XXXIII
Kennedy VA Hospital	LIII	White Surgical Supply Co.	XXVI
Leeming Thomas & Co., Inc.	XXXV	Winthrop Lahoratories	V, XIV XL

one answer...three minutes





three answers ...ten seconds

DIP AND READ

combistix®

urine protein • glucose • pH

BASIC COMBINATION TEST FOR BEDSIDE AND OFFICE

...faster than taking temperature. Detects glucosuria (as in diabetes), proteinuria (as in renal disorder), abnormal pH (as in calcinosis or GU infection). For routine screening of all patients. COMBISTIX—*basic as the stethoscope.*

AMES products are available through your regular supplier. 38263

AMES COMPANY INC Elkhart • Indiana Toronto Canada

specific
for anxiety
& tension

Librium

The singular specificity of Librium in controlling anxiety and tension has proven to be an advantage in a wide range of disorders characterized by anxiety of varying degrees. Notably effective in patients whose symptoms are primarily emotional, Librium is equally valuable when organic disease is aggravated or prolonged by accompanying anxiety. Coupled with its effectiveness is an outstanding record of safety. Librium has few, if any, of the unwanted side effects associated with tranquilizers and daytime sedatives—no extrapyramidal effects, no autonomic blocking, and no dulling of mental alertness. Consult literature and dosage information, available on request, before prescribing.

the successor to the tranquilizers

LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

ROCHE

ROCHE

V 13
56/3

THE JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION

TENNESSEE STATE MEDICAL ASSOCIATION
ANNUAL MEETING
APRIL 7-10, 1963
ANDREW JOHNSON HOTEL, KNOXVILLE

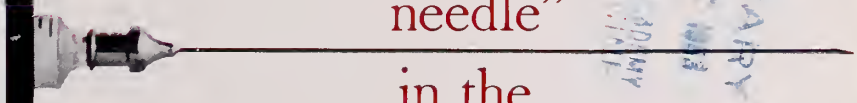
MARCH, 1963

Volume 56 Number 3

of Contents on Page IV
to Advertisers on Page LVI

LIBRARY

the longest "needle" in the world





It never stings—needs no sterilizing. It reaches all the way from your office to the patient's home to give him potent penicillin therapy as often and as long as he needs it. It's an *oral* "needle," of course . . . V-Cillin K®. . . the penicillin that makes oral therapy as effective as intramuscular, but safer—and much more pleasant.

Sometimes your judgment dictates parenteral penicillin for your office patients. But to extend that therapy, take advantage of the longest "needle" in the world . . . V-Cillin K.

Tablets V-Cillin K, 125 or 250 mg. (scored).

V-Cillin K, Pediatric, 125 mg. per 5 cc., in 40 and 80-cc.-size packages.

V-Cillin K® (potassium phenoxymethyl penicillin, Lilly) (penicillin V potassium)

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

233280

in severe respiratory infections
refractory to other measures.

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

for established clinical efficacy against susceptible organisms[1-]



In Friedlander's Pneumonia[3,13]

Although the prognosis in Friedlander's pneumonia is poor, treatment with CHLOROMYCETIN has shown a good response when susceptible strains of *Klebsiella pneumoniae* are incriminated.

In *Hemophilus Influenzae* Pneumonia[3,4,13,14]

Because the invading organism is usually sensitive to CHLOROMYCETIN, this agent is generally effective in pneumonias caused by *H. influenzae*.

In Staphylococcal Pneumonia[1-8,13]

CHLOROMYCETIN continues to remain effective against many resistant strains of staphylococci, and—alone or in combination with other antibiotics—should be considered when other antistaphylococcal drugs are ineffective.

In Acute Epiglottitis[4,10,11]

This condition is most often caused by *H. influenzae*, most strains of which are sensitive to CHLOROMYCETIN. Therapy should be instituted at once, since the disease may progress from the first symptoms to a severe respiratory obstruction in four to six hours.

In Pneumonias Due to Gram-negative Bacilli[9]

Because of its broad-spectrum activity, CHLOROMYCETIN is often effective in pneumonias caused by sensitive strains of *Aerobacter, Proteus* of various species, *Paracolobactrum,* and other gram-negative pathogens encountered with increasing frequency in serious respiratory tract infections.

In Staphylococcal Empyema[12]

The infiltrating lesions of staphylococcal empyema are often difficult to eradicate. While CHLOROMYCETIN should only be used when the infection has been resistant to treatment with other antistaphylococcal drugs, therapy with CHLOROMYCETIN, in conjunction with surgical procedures, will often bring favorable results.

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections such as colds, influenza, or viral infections of the throat, or as a prophylactic agent.

Precautions: It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Thacher, H. C., & Fishman, L.: *J. Maine M. A.* **52**:84, 1961. (2) Hopkins, E. W.: *Postgrad. Med.* **29**:451, 1961. (3) Hall, W. H.: *M. Clin. North America* **43**:191, 1959. (4) Krugman, S.: *Pediat. Clin. North America* **8**:1199, 1961. (5) Ede, S.; Davis, G. M., & Holmes, F. H.: *J.A.M.A.* **170**:638, 1959. (6) Wolfsohn, A. W.: *Connecticut Med.* **22**:769, 1958. (7) Calvy, G. L.: *New England J. Med.* **259**:532, 1958. (8) Hendren, W. H., III, & Haggerty, R. J.: *J.A.M.A.* **168**:6, 1958. (9) Cutts, M.: *Rhode Island M. J.* **43**:388, 1960. (10) Berman, W. E., & Holtzman, A. E.: *California Med.* **92**:339, 1960. (11) Vetto, R. R.: *J.A.M.A.* **173**:990, 1960. (12) Sia, C. C. J., & Brainard, S. C.: *Hawaii M. J.* **17**:339, 1958. (13) Rosenthal, I. M.: *GP* **17**:77 (March) 1958. (14) Gaisford, W.: *Brit. M. J.* **1**:230, 1959.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

03863

The Journal of the TENNESSEE STATE MEDICAL ASSOCIATION

Published Monthly

By Tennessee State Medical Association

OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE

Second Class Postage Paid at Nashville, Tennessee

Volume 56 No. 3 | MARCH, 1963 | Per Year, $5.00 Single Copy, 50 Cents

Published Monthly

Contents

Parkinsonism. Aspects of Physical Treatment, ODON F. VON WERSSOWETZ, M.D., Chattanooga, Tenn. . . . 77

Pocket Survival Kit, EDWARD F. SKINNER, M.D., Memphis, Tenn. . . . 85

Staff Conference . . . 89

Clinicopathologic Conference . . . 92

President's Letter . . . 97

Editorial . . . 98

Special Section . . . 100

Special Item . . . 111

Deaths . . . 112

Programs and News of Medical Societies . . . 112

National News . . . 113

Medical News in Tennessee . . . 115

Personal News . . . 118

Announcements . . . 119

Amendments to the Constitution and Bylaws . . . 121

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION should be addressed to the Secretary-Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 4, Tennessee.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE

R. H. KAMPMEIER, M.D., Editor

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein

Copyright, 1963, by the Tennessee State Medical Journal



Day and night– less wheezing, coughing, labored respiration in chronic bronchitis and emphysema

New Isuprel Compound Elixir is a balanced expectorant bronchodilator. It contains potassium iodide to promote expectoration and relieve dry cough. Its three bronchodilators, Isuprel, ephedrine, and theophylline, keep bronchi continuously dilated. Luminal is included to negate possible side effect from adrenergic medication and to provide very mild sedation for the patient.

New Isuprel Compound Elixir alleviates symptoms...prolongs relief in chronic bronchitis and emphysema.

Each good-tasting vanilla-flavored tablespoon (15 cc.) contains:

Isuprel® (brand of isoproterenol) HCl	2.5 mg.
Ephedrine sulfate	12 mg.
Theophylline	45 mg.
Potassium iodide	150 mg.
Luminal® (brand of phenobarbital)	6 mg.
Alcohol	19%

Adult Dose: 2 tablespoons 3 or 4 times daily.

How Supplied: Isuprel Compound Elixir is supplied in bottles of 16 fl. oz.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

New ISUPREL® compound ELIXIR

Winthrop LABORATORIES New York 18, N.Y.

ISUPREL AND LUMINAL, TRADEMARKS REG. U. S. PAT. OFF.

ANDREW JOHNSON HOTEL

"One of the South's Newest and Finest"

AAA RECOMMENDED

Featuring

- Spacious Rooms and Suites
- Free 21" Television and Radio in Each Room
- Dining in the Popular Andrew Johnson Tavern
- Outstanding Convention and Meeting Facilities
- Completely Air-Conditioned
- Ice and Drink Machines on Each Floor
- Free Overnight Parking





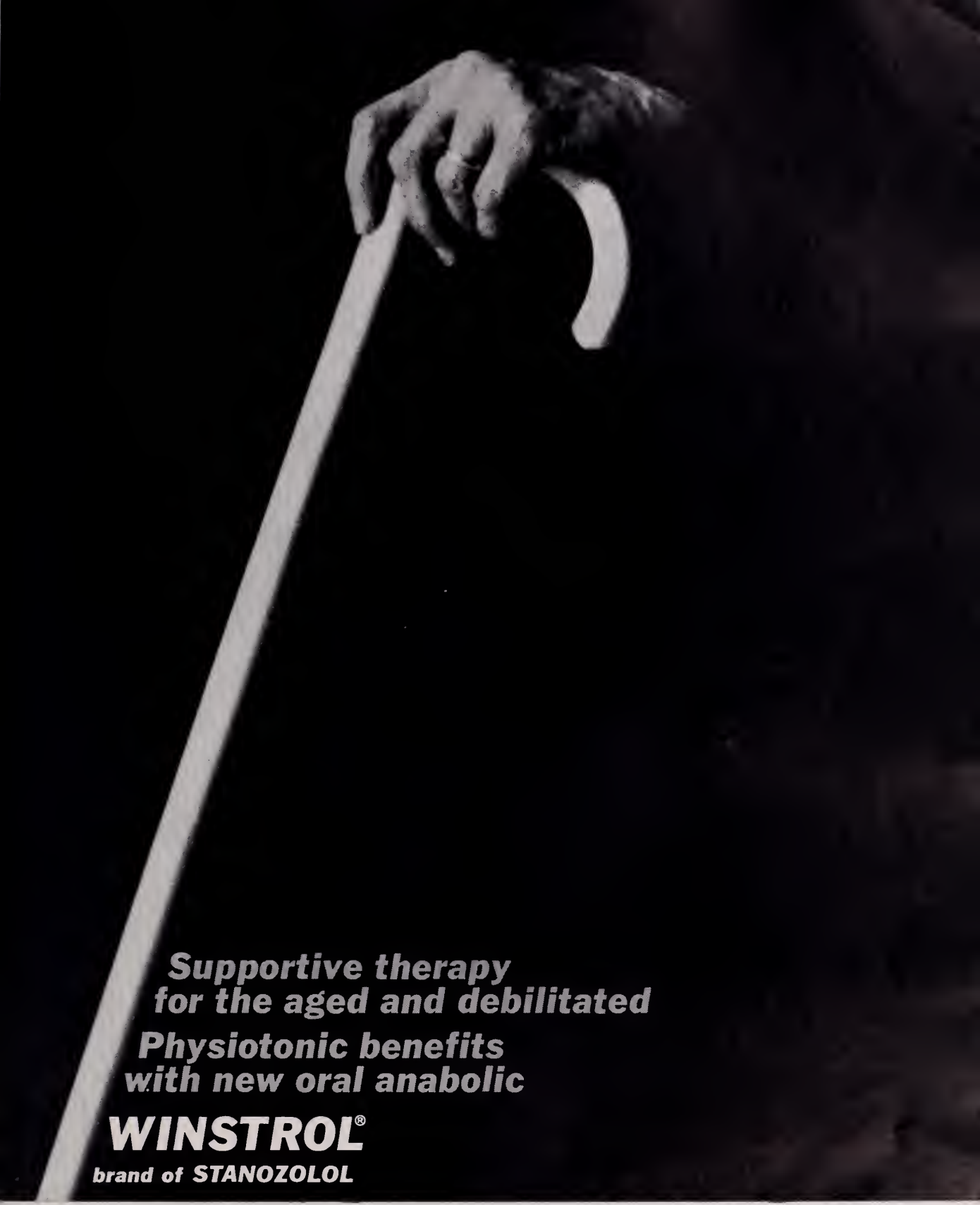
and . . .

THE NEW PATIO SWIMMING POOL and SNACK BAR

In the Heart of Downtown Knoxville

ANDREW JOHNSON HOTEL

918 Gay Street, S.W. KNOXVILLE, TENNESSEE Phone 522-4103



Supportive therapy for the aged and debilitated

Physiotonic benefits with new oral anabolic

WINSTROL®

brand of STANOZOLOL

ed improvement in appetite / Measurable weight gain / Notable increase in vigor, strength and sense of well-being

nabolic Winstrol combines highest potency* with outstanding ıce in an economical oral tablet. Employed adjunctively, its tonic benefits are evident in the management of a variety of ts: the geriatric; the post-operative; the weak; the debilitated ıronic or malignant disorders. Winstrol reverses tissue-depleting ses, restores a positive metabolic balance, rebuilds body tissue ıt builds strength, builds confidence and restores a sense of ing.

*ANIMAL DATA

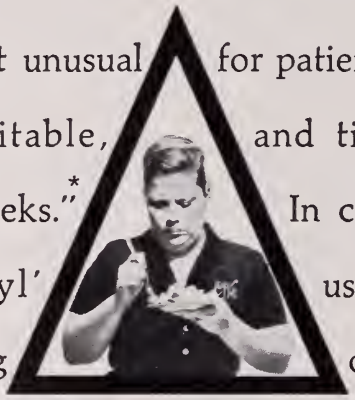
Usual Adult Dose: 1 tablet t.i.d. Before prescribing, consult literature for additional dosage information, possible side effects and contraindications.
Supplied: 2 mg. tablets. Bottles of 100.

With Winstrol, patients look better... feel stronger— because they are stronger!

WINTHROP LABORATORIES, NEW YORK 18, N. Y.

Winthrop

WHAT IS SO IMPORTANT ABOUT THE MOOD-ELEVATING EFFECT OF DEXAMYL® IN OVERWEIGHT?



"It is not unusual for patients on a low-calorie diet to feel low, irritable, and tired during the first two or three weeks."* In contrast, the dieting patient on 'Dexamyl' usually gains a brighter outlook, a feeling of energy and general well-being, and, most important, confidence that she really can lose weight after all! In addition to its mood effect, one 'Dexamyl' Spansule® sustained release capsule taken in the morning effectively curbs appetite all day—both at and between meals.



*Matlin, E.: *The Obvious in Obesity, Clin. Med.* 8:1071 (June) 1961.

FORMULA: Each 'Dexamyl' *Spansule* capsule No. 2 contains 15 mg. of Dexedrine® (brand of dextro amphetamine sulfate) and 1½ gr. of amobarbital, derivative of barbituric acid [Warning, may be habit forming]. Each 'Dexamyl' *Spansule* capsule No. 1 contains 10 mg. of 'Dexedrine' (brand of dextro amphetamine sulfate) and 1 gr. of amobarbital [Warning, may be habit forming]. The active ingredients of the 'Spansule' capsule are so prepared that a therapeutic dose is released promptly and the remaining medication, released gradually and without interruption, sustains the effect for 10 to 12 hours.

INDICATIONS: (1) For control of appetite in overweight; (2) for mood elevation in depressive states.

USUAL DOSAGE: One 'Dexamyl' *Spansule* capsule taken in the morning for 10- to 12-hour therapeutic effect.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Use with caution in patients hypersensitive to sympathomimetic compounds or barbiturates and in coronary or cardiovascular disease or severe hypertension.

SUPPLIED: Bottles of 50 capsules.

Smith Kline & French Laboratories *Prescribing information October 1962*

MEAN INCREASE OF 80% IN CORONARY BLOOD FLOW*

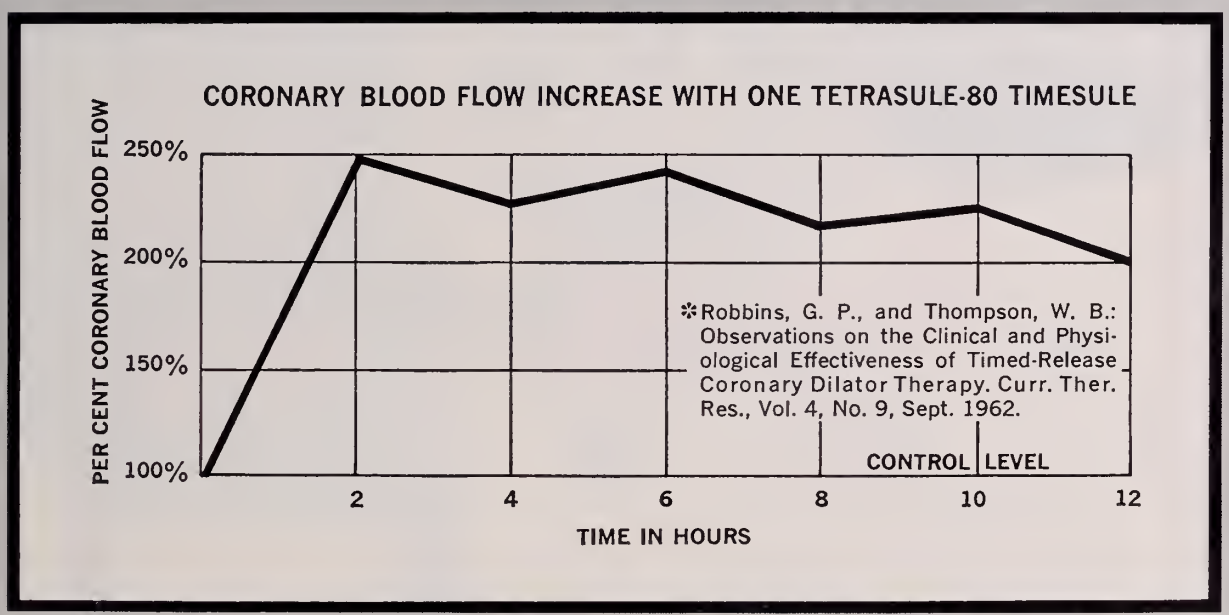
For your
angina patients
continuous protection
all day,
all night



Tetrasule®

Pentaerythritol Tetranitrate, Arnar-Stone

Therapy with TETRASULE TIMESULES®, Timed-release capsules:
dilates coronary arteries → increases coronary blood flow → helps nourish oxygen-deficient myocardium → minimizes frequency of attacks and reduces their severity should they occur → reduces nitroglycerine requirements



With a Tetrasule Timesule, release of PETN is timed-phased over 12 hours and matches PETN need. The pellets are distributed throughout the G-I tract, and release is independent of enzymatic activity or motility. Thus, constant availability of PETN—no peaks or valleys—is assured.

B.i.d. dosage of Tetrasule Timesules provides continuous protection—all day, all night—including the critical early A.M. hours. This 12-hour protection was confirmed by a recent study of Robbins and Thompson , as demonstrated in the above chart.

SUPPLIED: Tetrasule, 30 mg. PETN; Tetrasule-S, 30 mg. PETN and 30 mg. Amobarbital (warning, may be habit-forming); Tetrasule-80, 80 mg. PETN.

CAUTION: Federal law prohibits dispensing without prescription. Use with caution in glaucoma and severe anemia.

For reprints of the above study or a clinical supply write to:

ARNAR-STONE Laboratories, Inc.
STORCK PHARMACEUTICALS DIVISION
Mount Prospect, Illinois

New--from Mayrand

D-CAL-NaF

BASIC SUPPLEMENT

plus FLUORIDE



Here is a phosphorus-free CALCIUM for immediate conversion and rapid assimilation; non-irritating, non-constipating IRON; and **only** those other nutrients needed to meet increased demands during pregnancy—Vitamins D, C and B-6.

Since tooth buds begin to form about the 6th week of pre-natal life, here is FLUORIDE for the future caries control of both mother and child.

Here is D-CAL-NaF — a sensible, moderate-cost formulation. ABOUT FOUR BOTTLES WILL PROTECT MOTHER AND FETUS DURING FULL TERM.

Each tablet Contains:

IN OUTER COATING:
Calcium Carbonate ..... 750 mg.
(Supplies 300 mg. of elemental Calcium)

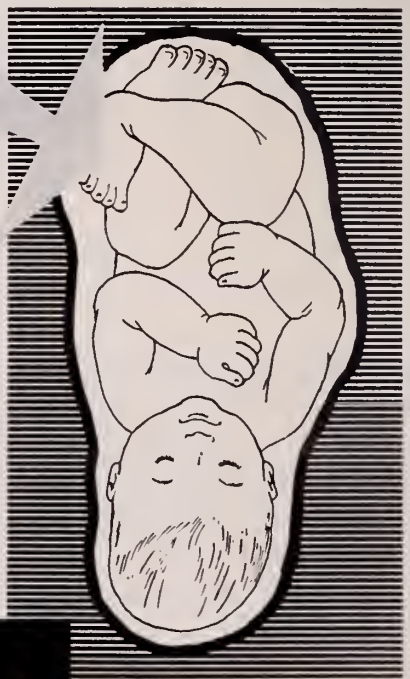
IN INNER CORE:
Iron (As Ferrous Fumarate) ..... 50 mg.
Vitamin D ..... 400 Units
Vitamin C ..... 75 mg.
Vitamin B-6 ..... 5 mg.
Sodium Fluoride ..... 1.1 mg.
(Supplies 0.5 mg. fluoride ion)

CONTRAINDICATED: Where natural or added fluoride in water exceeds 0.7 ppm. except on advice of physician.

SUPPLIED: BOTTLES OF 100 TABLETS —

References:

1. Feltman, R., and Kossel, G.: Prenatal Ingestion of Fluorides and their Transfer to the Fetus. Science 122:560-561 (Sept. 23) 1955.
2. Nutritional Reviews 17:267-268 (Sept.) 1959.
3. Council on Dental Therapeutics "Prescribing Supplements of Dietary Fluorides", J.A.D.A. 56:589-591, April 1958.
4. Hall, E. W., "The Family Doctor and Preventive Dentistry", G.P., XXII:6, December 1960. pp 109-111.



Mayrand, Inc. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA

SAMPLES AND COMPLETE DOSAGE INFORMATION ON REQUEST.

EVERYBODY DOES IT





Toot! We have a nice little bargain, too...

Accustomed as we are to talking about purity, potency, stability, things like that, we thought you might like to know that mothers can make a nice saving on Vi-Daylin Chewables for the next few weeks. Nothing complicated. She buys a bottle of 100 at the regular price. She gets a bottle of 30 free. Big deal? Well, not a bad one. It means she's getting her Vi-Daylin for less than 3¢ per daily dose per child. You might find some vitamins somewhere that would cost even less. But will the youngsters take them?

Vi-Daylin—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott

301079



ABBOTT 75TH ANNIVERSARY

These Chewables Taste as Good as They Look

(AND THEY'RE SUGAR-FREE, THANKS TO SUCARYL®)

First cousin to an orange. Next door neighbor to a lemon — that's new VI-DAYLIN® CHEWABLE with *Entrapped* Flavor.

They look like footballs and smell like candy and you've never tasted a chewable vitamin quite like them. What surprises you is not so much what you taste as what you *don't* taste. Vitamins. They simply don't come through — either in taste or aftertaste. Even the riboflavin is trapped and civilized.

Our dual coating process does it — seals the raw vitamin tastes, protects the delicate flavoring agents. Releases the sweet citrus flavor in the mouth, the vitamins in the g-i tract. With *both* vitamins and flavors entrapped, there's just no chance of the tablets turning musty in the bottle.

Rational formula. And sweetened with sugar-free SUCARYL.

If they look good to you, imagine what youngsters will think.

75TH ANNIVERSARY ABBOTT



SUCARYL—Abbott's Non-Caloric Sweetener.
VI-DAYLIN—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott.



FLEXIBLE

for the patient who must follow an intensive and prolonged antacid regimen as in the treatment of peptic ulcer

as reactive in tablet form . . .

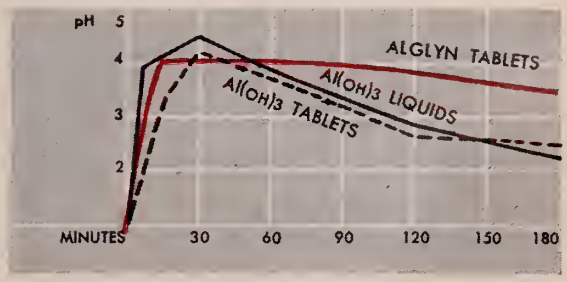
ALGLYN®

Dihydroxy aluminum aminoacetate

The superiority of Alglyn (dihydroxy aluminum aminoacetate) as an antacid over ordinary aluminum preparations is quite pronounced. Not only do Alglyn Tablets act as rapidly as aluminum hydroxide gels and magmas, but they maintain a much more effective pH for a longer time (see chart).

Furthermore, Alglyn Tablets are decidedly superior when antacid-belladonna therapy is indicated. Ordinary aluminum preparations may actually *ad*sorb as much as 80% of the spasmolytic drug, as compared to only 7% for Alglyn Tablets. In addition, Alglyn contains no sodium and less aluminum.

Supplied in bottles of 100 0.5 Gm. tablets. Also as Belglyn® (with belladonna), and as Malglyn® (with belladonna and phenobarbital). Literature available upon request. *(See pg. 549 PDR for complete product information.)*



BRAYTEN

BRAYTEN PHARMACEUTICAL COMPANY *Chattanooga 9, Tennessee*

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply

& Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601



after surgery: vitamins are therapy

Nutritional supplementation is basic to postoperative care. Therapeutic allowances of B and C vitamins help meet increased metabolic requirements and compensate for stress depletion. STRESSCAPS can set the patient on a more favorable course and contribute to full recovery. Packaged in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle



from tabardilho in Brazil to acute bronchitis in Tennessee

here is a world of experience behind BRAND OF OXYTETRACYCLINE **Terramycin®**

Whether treating *tabardilho* or a host of other infections, physicians throughout the world continue to rely on TERRAMYCIN for its outstanding safety, effectiveness and excellent tolerability. Not a single case of phototoxic reaction, blood dyscrasia or neurologic disturbance directly attributable to TERRAMYCIN has been reported in more than 3,000 clinical papers in the last 12 years. *In your practice, the next infection you see will very likely be "Terra-responsive."*

Tabardilho, a type of tick typhus, is probably an analog of Rocky Mountain spotted fever, and is caused by *Rickettsia rickettsii.* The tick vectors are any of several species of amblyomma.* The natural reservoirs are the opossum, dogs, the wild rabbit, and the agouti,* a rodent about the size of a rabbit. Mortality is reported to run as high as 80%.

Usually, a lesion is found at the bite site with accompanying regional lymphadenitis.* Actual onset is abrupt with severe headache, arthralgias, myalgias, prostration, extremely high fever, and a marked leukocytosis. A distinctive rash appears about the fourth febrile day; discolorations may persist for several weeks during convalescence. The pathogen grows readily in the yolk sac of the developing chick embryo.* *Tabardilho* is effectively treated by TERRAMYCIN. **illustrated*



IN BRIEF The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using. *More detailed professional information available on request.*

Science for the world's well-being®

Pfizer

PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc.
New York 17, New York



Whatever happened
to handkerchiefs?



Remember when handkerchiefs were used for stuffy or runny noses? *That was before Naldecon.* Naldecon lets your head-cold patient breathe the way he should. Through the nose. Honest relief that lasts up to 8 hours with one sustained-action tablet. (When you need it, even *half* a tablet retains the sustained-action feature.) The counterbalance between *two* antihistamines and *two* decongestants* usually gives excellent results—seldom causes overstimulation or sedation. Keep handkerchiefs for showing. Prescribe Naldecon.

*Each tablet contains phenylephrine HCl 10 mg., phenylpropanolamine HCl 40 mg., phenyltoloxamine citrate 15 mg., chlorpheniramine maleate 5 mg.—half in the outer layer, half in the sustained-action core. Each teaspoonful (5 cc.) of Naldecon Syrup contains the equivalent of one-half tablet.

NALDECON®

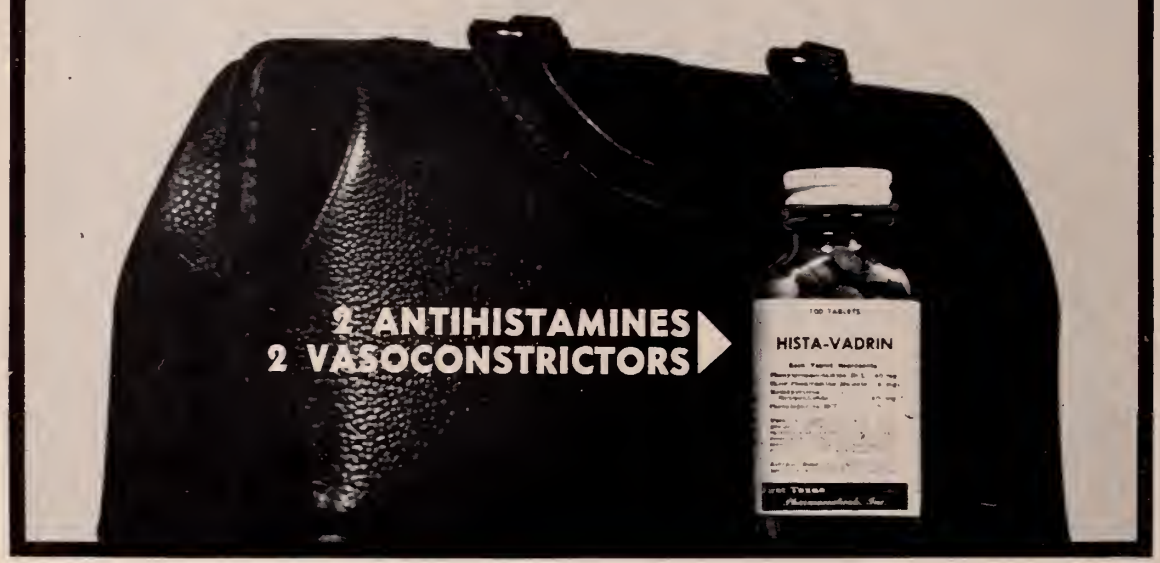
long-acting nasal decongestant/ antihistamine

BRISTOL LABORATORIES
Div. of Bristol-Myers Co.
Syracuse, New York



HISTA-VADRIN

when antihistamines alone are not enough



HISTA-VADRIN, an upper respiratory decongestant, is designed for the oral relief of congestion and edema of the upper respiratory passages. The ANTIHISTAMINIC drugs methapyriline and chlor-pheniramine are noted for their ability to prevent vasodilatation and inflammatory edema caused by the release of histamine.

VASOCONSTRICTORS, phenylpropanolamine and phenylephrine oppose mucosal edema by constricting blood vessels which have been dilated by histamine and other factors involved in inflammation. These vasoconstrictors are not as likely to cause excitement or wakefulness as ephedrine or methamphetamine (1).

Indications: For the relief of hay fever, vasomotor rhinitis, and symptoms resulting from upper respiratory infections. Hista-vadrin can afford relief also in other allergic conditions such as urticaria and angioedema.

Each scored Hista-vadrin tablet contains:

Phenylpropanolamine Hydrochloride	40 mg.
Chlor-Pheniramine Maleate	4 mg
Methapyriline Hydrochloride	40 mg.
Phenylephrine Hydrochloride	5 mg

Dosage: Adult Dose, 1 tablet every six hours or in accordance with therapeutic response.

Supplied: Slow release scored tablets designed tc disintegrate in 2 to 3 hours.

Reference available on request.

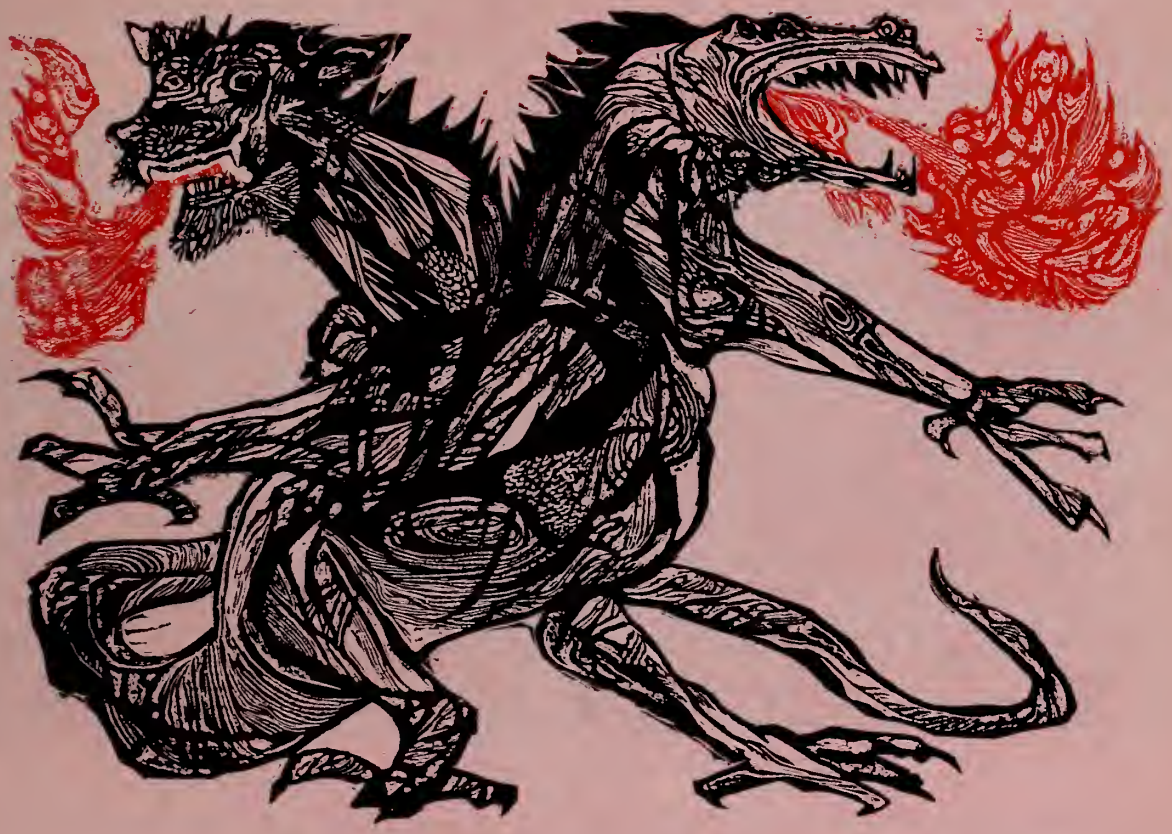
Samples and professional literature on request.

HISTA-VADRIN is another "established need" product

First Texas *Pharmaceuticals, Inc.*

DALLAS ● ATLANTA ● SINCE 1901

When severe pain accompanies skeletal muscle spasm ease both 'pain & spasm'



with Robaxisal®

Robins

ROBAXIN® with Aspirin

A dual-acting skeletal muscle relaxant-analgesic, combining the clinically proven relaxant action of ROBAXIN with the time-tested pain relieving action of aspirin.

Each ROBAXISAL Tablet contains:

ROBAXIN (methocarbamol Robins) 400 mg. Acetylsalicylic acid (5 gr.)..... 325 mg.

U.S. Pat. No. 2770649

Supply: Bottles of 100 and 500 pink-and-white laminated tablets.

Or ROBAXISAL®-PH (ROBAXIN with Phenaphen®) — when anxiety is associated with painful skeletal muscle spasm.

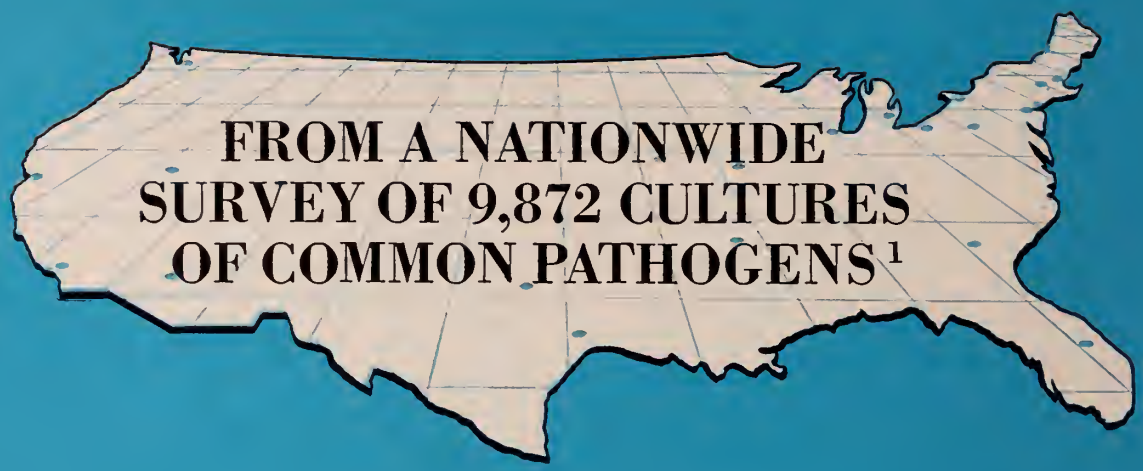
Each ROBAXISAL-PH Tablet contains:

ROBAXIN (methocarbamol Robins) 400 mg. Acetylsalicylic acid ..... 81 mg.
Phenacetin 97 mg. Hyoscyamine sulfate 0.016 mg. Phenobarbital (1/8 gr.) 8.1 mg.

Supply: Bottles of 100 and 500 green-and-white laminated tablets.

A. H. ROBINS CO., INC., Richmond 20, Virginia

Making today's medicines with integrity ... seeking tomorrow's with persistence.



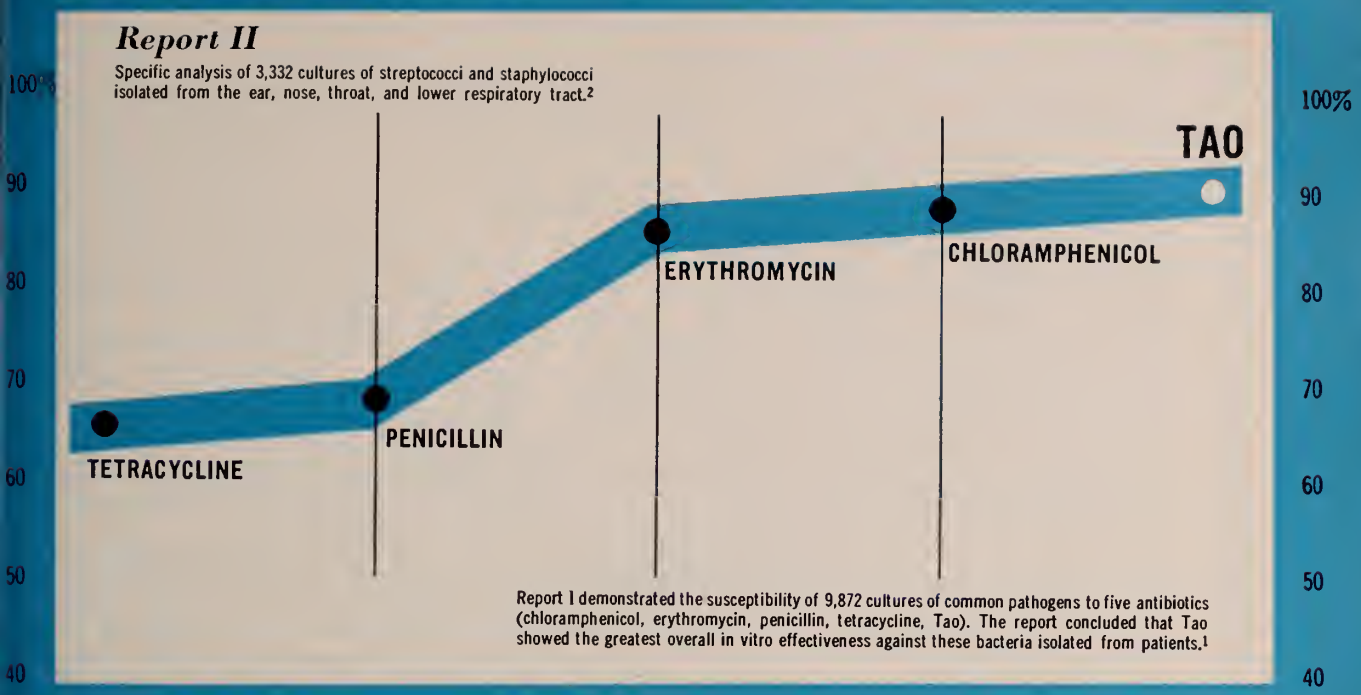
FROM A NATIONWIDE SURVEY OF 9,872 CULTURES OF COMMON PATHOGENS[1]

Conclusions of Nationwide Survey: *Report I*

1. **Even after five years of general use,** Tao, of the antibiotics tested, demonstrated greatest activity against respiratory streptococci and staphylococci (3,332 cultures).

2. **Overall results showed a higher percentage of susceptibility** among these common pathogens to Tao than to the other antibiotics. Susceptibility to Tao was greatest, not only in respiratory streptococci and staphylococci, but also in these organisms isolated from skin and soft tissue (3,423 cultures), genitourinary and gastrointestinal tracts and other sources (2,458 cultures). Susceptibility was equal to all antibiotics tested in pneumococci from unspecified sources (463 cultures), and less to Tao in H. influenzae from unspecified sources (196 cultures).

3. **Tao has been used for five years without development of predictable cross resistance.** In 1958 and 1961, approximately 73% and 70%, respectively, of erythromycin-resistant problem staphylococci showed susceptibility to Tao.[3,4] The present study confirms the continuing high degree of Tao activity even against these pathogens. Of 1,592 cultures of erythromycin-resistant staphylococci, 68% were susceptible to Tao, while in the reverse situation, only 33% of 768 Tao-resistant staphylococci were susceptible to erythromycin.



Report II

Results of Bacterial Susceptibility in 3,332 Respiratory Pathogens

References

1. "Bacterial Susceptibility Patterns: A Geographic Survey." Fowler, J. Ralph, M.D., and Watters, John L., M.D. Scientific Exhibit presented at the Annual Meeting of the American Society of Clinical Pathologists, Chicago, Ill., August 31 to September 9, 1962. 2. Fowler, J. Ralph, Watters, John L. and Levy, Arthur M.: Bacterial Susceptibility Patterns as Related to Geographic Variation and Anatomical Source. In press. 3. English, A. R., and Fink, F. C.: Antibiot. & Chemother. 8:420 (Aug.) 1958. 4. English, A. R., and Fink, F. C.: Antibiot. and Chemother. 11:648 (Oct.) 1961.

New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

If you would like a report of the entire susceptibility study, write Medical Department, J. B. Roerig and Company, 235 E. 42nd St., New York 17, N.Y.



Capsules · Ready-Mixed Oral Suspension · Pediatric Drops · Parenteral (as oleandomycin phosphate)

...WITH 'METHEDRINE' SHE CAN HAPPILY REFUSE!



Controls food craving, keeps the reducer happy — In obesity, "our drug of choice has been methedrine . . . because it produces the same central effect with about one-half the dose required with plain amphetamine, because the effect is more prolonged, and because undesirable peripheral effects are significantly minimized or entirely absent." Douglas, H. S.: West.J.Surg. 59:238 (May) 1951.

'METHEDRINE'®

brand Methamphetamine Hydrochloride

Supplied: Tablets 5 mg., scored. Bottles of 100 and 1000.

Literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and record of safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past seven years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. *unmarked,* coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

Clinically proven in over 750 published studies

1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms or liver damage
3. Does not muddle the mind or impair physical activity

CM-7972

Why Sardo® is the **BATH OIL OF CHOICE** for dry, itchy skin



Why does SARDO so effectively relieve[1-5] dryness and itching in so many patients with eczematoid dermatitis, atopic dermatitis, senile pruritus, contact dermatitis, soap dermatitis, diabetic dry skin, neurodermatitis?

These are the reasons . . .

HIGH QUALITY SARDO is the **original, exclusive,** high quality water-dispersible bath additive oil.*

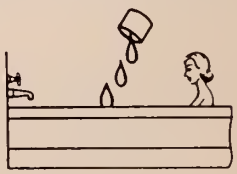
IMMEDIATE DISPERSIBILITY
SARDO promptly disperses millions of microfine globules uniformly throughout the bath water; no unsightly oil slicks as with certain other bath additives.

SUPERIOR ADSORBABILITY SARDO covers the skin with a fine, unobtrusive long-clinging oil film . . . which lubricates, softens, prevents excessive moisture evaporation and so helps to replenish natural oil and moisture.

ECONOMICAL In addition, the cost per application of SARDO is low — for only **one** capful per bath is required for therapeutic effect.

PLEASANT Unique pine scent, non-sticky, non-sensitizing, SARDO assures patient cooperation.

SARDO consists of oils and various esters of specially selected organic acids having a chain length of C-14 and 16 in combination with non-irritating wetting agents to provide colloidal dispersion of the lipophilic phase. Fragrance consists of natural essential oils, isolates, and aromatics.



FOR SAMPLES AND LITERATURE

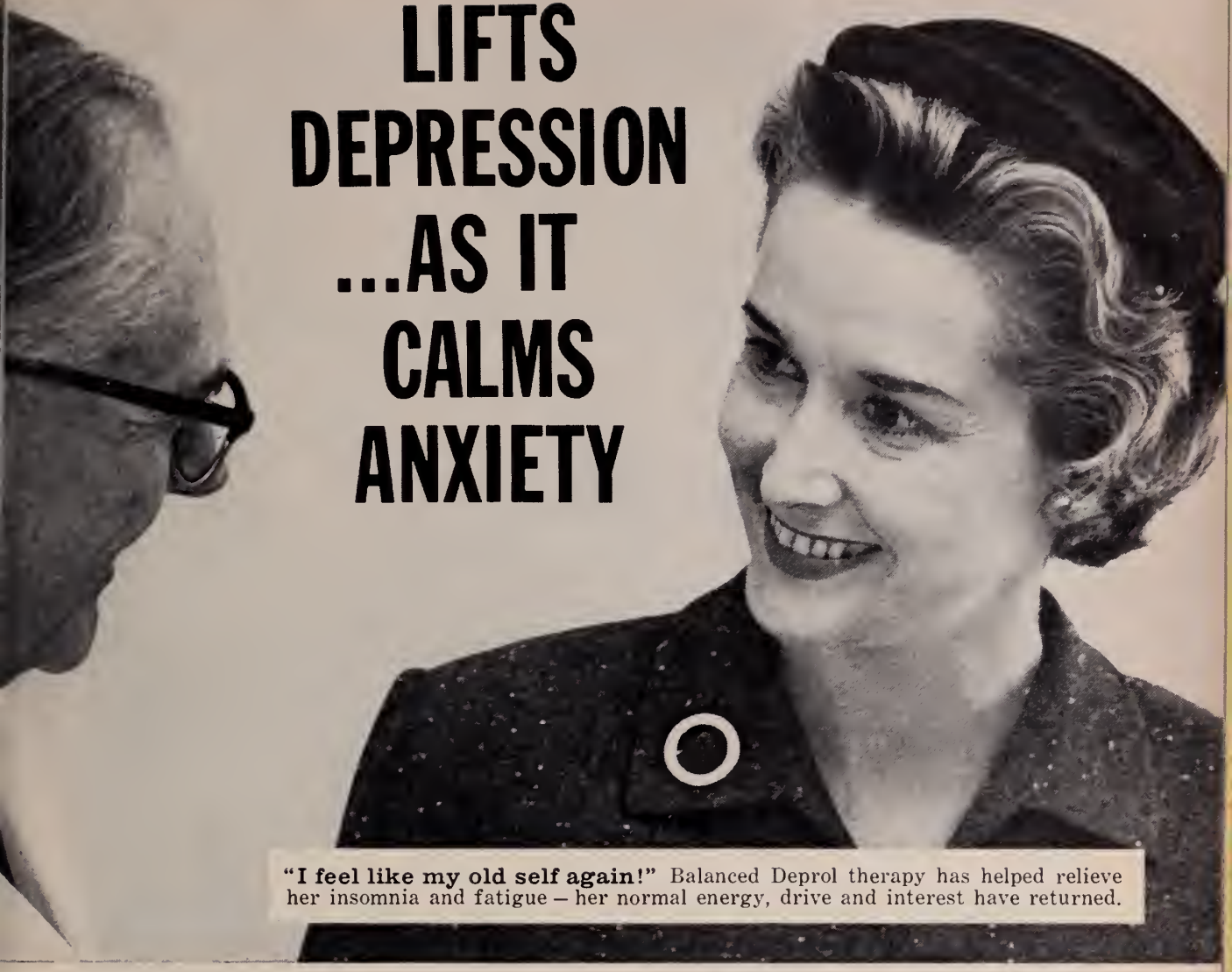
please write . . . **SARDEAU,** INC. 75 East 55th Street, New York 22, N. Y.

Also available: SARDOETTES, disposable compresses impregnated with SARDO, for topical application in relieving skin dryness, itching, scaliness in the same conditions as listed for SARDO.

1. Borota, A., and Grinell, R. N.: J. Amer. Geriatrics Soc., 10:413, 1962. 2. Spoor, H. J.: N. Y. State J. M., 58:3292, 1958. 3. Lubowe, I. I.: Western Med., 1:45, 1960. 4. Weissberg, G.: Clin. Med., 7:1161, 1960. 5. Lieberman, W.: Amer. J. Proctology, 12:374, 1961.

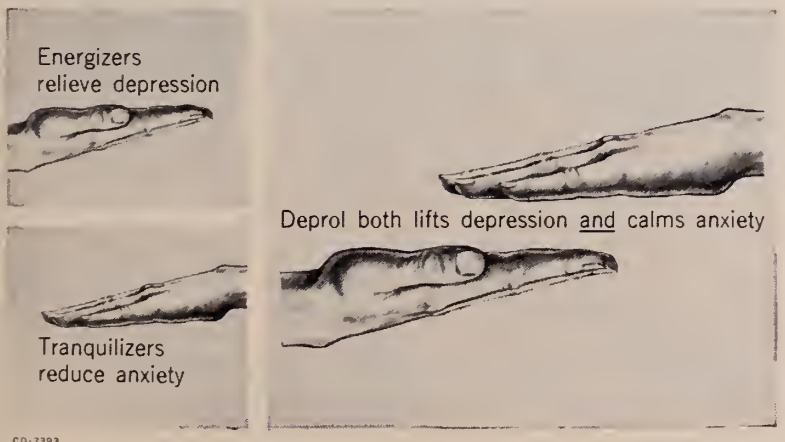
* Pat. Pend. T.M. © 1963 by Sardeau, Inc.

LIFTS DEPRESSION ...AS IT CALMS ANXIETY



"I feel like my old self again!" Balanced Deprol therapy has helped relieve her insomnia and fatigue – her normal energy, drive and interest have returned.

Brightens mood...relaxes tension



Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

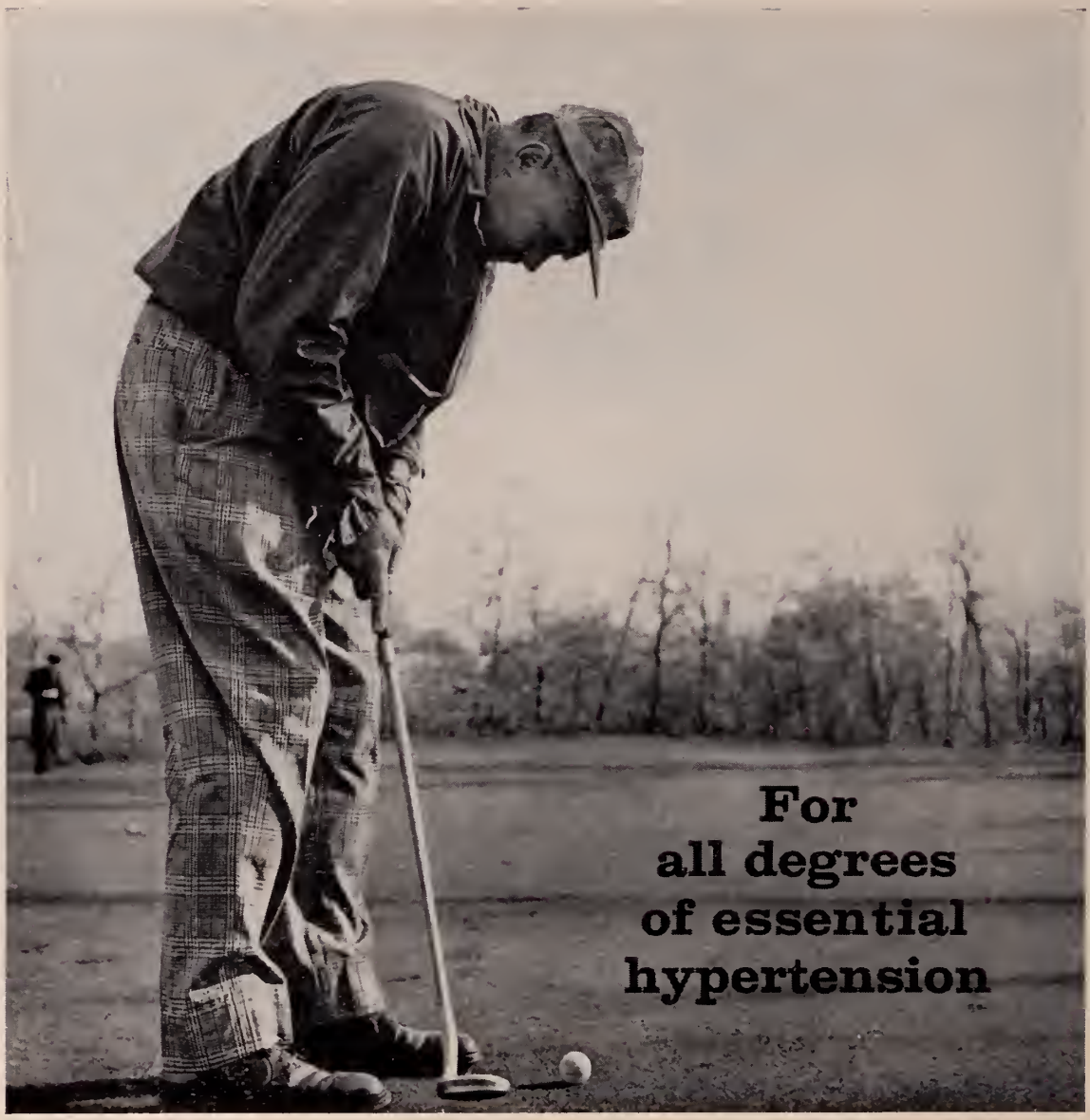
Supplied: Bottles of 50 light-pink, scored tablets.

Write for literature and samples.

▲Deprol▲®

WALLACE LABORATORIES
Cranbury, N. J.

CD-7393



"relief of symptoms is striking with Rautrax-N"†

Rautrax-N decreases blood pressure for almost all patients with mild, moderate or severe essential hypertension. Rautrax-N also offers a new sense of relaxation and well-being in hypertension complicated by anxiety and tension. And in essential hypertension with edema and/or congestive heart failure, Rautrax-N achieves diuresis of sodium and chloride with minimal effects on potassium and other electrolytes.

Rautrax-N combines Raudixin (antihypertensive-tranquilizer) with Naturetin c K (antihypertensive-diuretic) for greater antihypertensive effect and greater effectiveness in relief of hypertensive symptoms than produced by either component alone. Rautrax-N is also flexible (may be prescribed in place of Raudixin or Naturetin c K) and economical (only 1 or 2 tablets for maintenance in most patients).

Supply: Rautrax-N — capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin and 400 mg. potassium chloride. *Rautrax-N Modified* — capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin and 400 mg. potassium chloride.

†Hutchison J. C.: Current Therap. Res. 2:487 (Oct.) 1960.

For full information, see your Squibb Product Reference or Product Brief.

Rautrax-N*

Squibb Standardized Rauwolfia Serpentina Whole Root (Raudixin) and Bendroflumethiazide (*Naturetin) with Potassium Chloride

SQUIBB *Squibb Quality — the Priceless Ingredient*

SQUIBB DIVISION Olin

'RAUDIXIN'®, 'RAUTRAX'®, AND 'NATURETIN'® ARE SQUIBB TRADEMARKS.



Flavor you never thought you'd get from any filter cigarette!

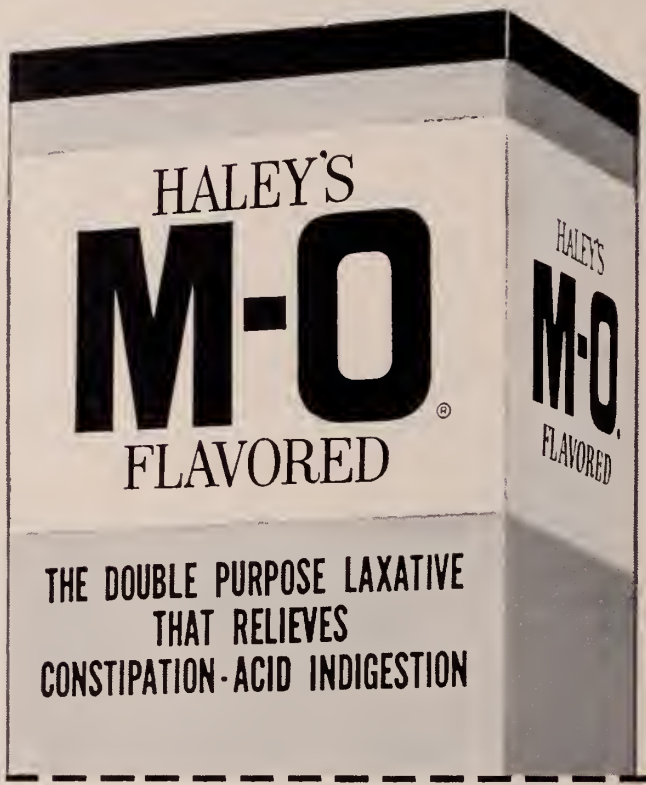
You'll never know how satisfying filter smoking can be until you try Tareytons. Fine, flavor-rich tobaccos go into each Tareyton. Then the famous Dual Filter brings out the best taste of these choice tobaccos. Sound too good to be true? Pick up a pack of Tareytons today and see for yourself.

Dual Filter makes the difference

DUAL FILTER Tareyton

Product of The American Tobacco Company — Tobacco is our middle name

NOW ALSO IN FLAVORED FORM!



BOTTLES OF
4 OZ., 8 OZ.,
1 PT., 1 QT.

Antacid—Laxative—Lubricant to help correct constipation

Magnesium Hydroxide plus pure mineral oil make *Haley's M-O* a smooth working antacid-laxative-lubricant that efficaciously relieves constipation and attendant gastric hyperacidity.

The oil globules in *Haley's M-O* are minutely subdivided to assure uniform distribution and thorough mixture with intestinal contents. Oil leakage is thus avoided and a comfortable evacuation is effected through the stimulation of normal intestinal rhythm and blunted defecation reflex.

May we send samples for your evaluation? Just write:

THE CHAS. H. PHILLIPS CO.

Division of Sterling Drug Inc., 1450 Broadway, New York 18, N. Y.



who coughed?

HYCOMINE® SYRUP for COUGHS

provides fast and long-lasting cough control

relieves cough in 15-20 minutes • lasts 6 hours or longer • promotes expectoration and decongestion of air passages • rarely constipates • agreeably cherry-flavored

Each teaspoonful (5 cc.) of HYCOMINE Syrup contains:

Hycodan®	6.5 mg.
Dihydrocodeinone Bitartrate (Warning: May be habit-forming)	5 mg.
Homatropine Methylbromide	1.5 mg.
Pyrilamine Maleate	12.5 mg.
Phenylephrine Hydrochloride	10 mg.
Ammonium Chloride	60 mg.
Sodium Citrate	85 mg.

Average adult dose: One teaspoonful after meals and at bedtime. May be habit-forming. On oral prescription where state laws permit. U.S. Pat. 2,630,400.

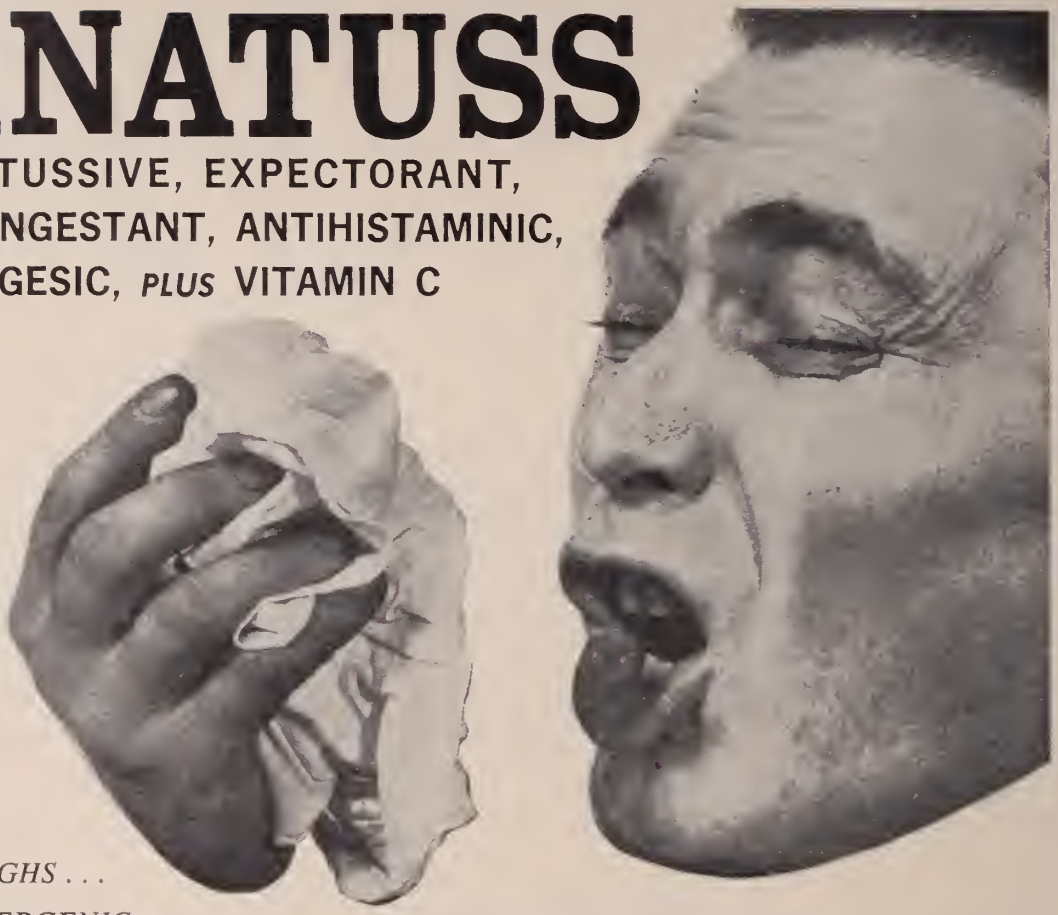
Literature on request

Endo®

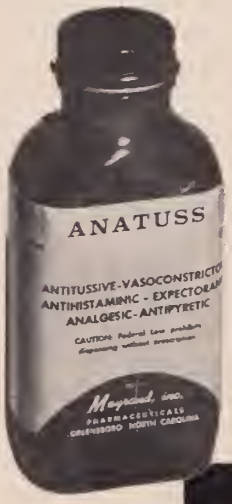
ENDO LABORATORIES
Richmond Hill 18, New York

ANATUSS

ANTITUSSIVE, EXPECTORANT, DECONGESTANT, ANTIHISTAMINIC, ANALGESIC, *PLUS* VITAMIN C



- *COUGHS . . .*
- *ALLERGENIC REACTIONS . . .*
- *NASAL CONGESTION . .*
- *MINOR PAIN . . .*



SAMPLES AND LITERATURE ON REQUEST

ANATUSS TABLETS' UNIQUE PRESS COATING COMBINES 7 ACCEPTED INGREDIENTS FOR A 7 PRONG ATTACK ON RESPIRATORY SYMPTOMS . . .

At last — here is a tablet containing previously incompatible drugs which could not be administered in a single dosage form. ANATUSS is valuable in treating irritating coughs associated with allergic bronchitis or rhinitis; coughs and allergenic conditions associated with the common cold; chronic non-specific bronchitis; acute pharyngitis with cough; chronic pulmonary disease; post influenzal cough.

Each Tablet Contains:

IN OUTER COATING

Glyceryl Guaiacolate ..... 50 mg. N-Acetyl-P-Aminophenol ..... 300 mg.

IN INNER CORE

Dextromethorphan Hydrobromide ... 10 mg. Phenylephrine Hydrochloride .. 5 mg.
Phenylpropanolamine Hydrochloride 25 mg. Chlorpheniramine Maleate ..... 2 mg.
Ascorbic Acid ..... 100 mg.

Available in Bottles of 100 and 500 tablets. **ALSO** as **ANATUSS SYRUP**, combining the same valuable ingredients in a pleasantly flavored base.

Maynard, Inc. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

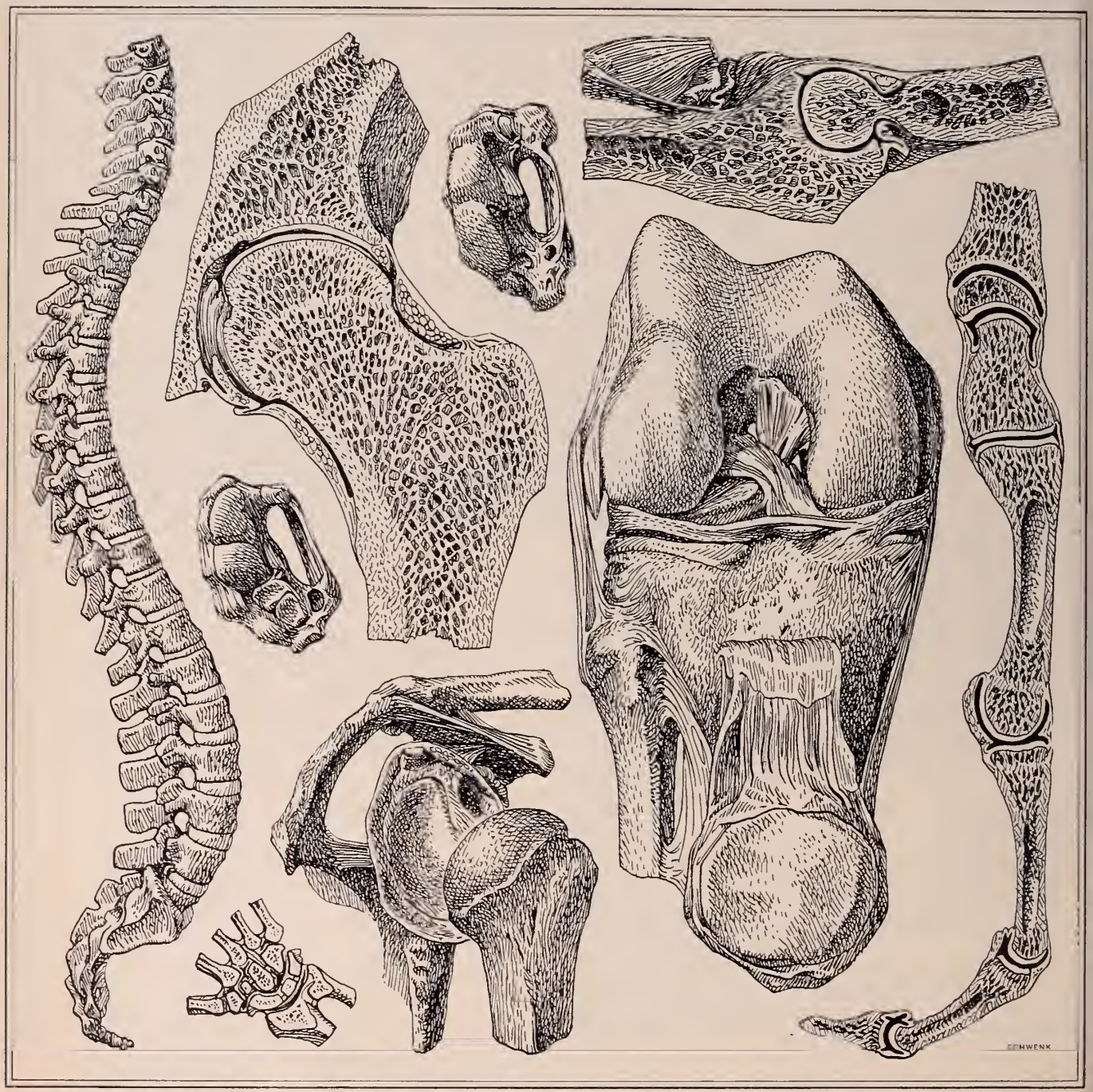
Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey


EHWENK

Joint Account

With ARISTOCORT Triamcinolone, patients with rheumatoid arthritis and related disorders of the joints obtain early gratifying relief of pain, swelling, and stiffness of joints, with improved mobility. Yet ARISTOCORT provides symptomatic control with only minimal interference with other metabolic mechanisms. In this respect, ARISTOCORT is unsurpassed, when compared with other corticosteroids, old and new. Typical steroid problems of sodium retention and edema, undesirable euphoria, or voracious appetite and excessive weight gain rarely occur with ARISTOCORT.

Aristocort®
Triamcinolone Lederle

Maximum steroid benefits with minimum steroid penalty

Request complete information on indications, dosage, precautions and contraindications for ARISTOCORT Tablets (1 mg., 2 mg., 4 mg.) from your Lederle representative, or write to Medical Advisory Department.

Lederle LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York
163-3

mudrane® GG

GLYCERYL GUAIACOLATE LIQUEFIER-EXPECTORANT

A combination of widely used drugs for the treatment of asthma. Each tablet contains *Glyceryl Guaiacolate 100 mg., Aminophylline 130 mg., Ephedrine HCl 16 mg., Phenobarbital 21 mg. . . . compounded for balanced action and buffered for tolerance.

*Glyceryl Guaiacolate has no known side effects.

COMPLETE INFORMATION AND CLINICAL SAMPLES SENT UPON REQUEST

Dispensed in bottles of 100 and 1000 tablets

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

advancing or complicated hypertension responds to

new Naquival®

brand of trichlormethiazide and reserpine

with STEP-BY-STEP reduction (no sudden drops[1-4]) of elevated blood pressure ☐ relief of associated headache,[3,4] dizziness,[2-4] edema,[2-5] anxiety and tension[1] ☐ simplified dosage (twice daily)...long-term economy

(With new NAQUIVAL there are no reported toxic effects,[2-5] side effects are minor and infrequent,[1-5] and salt restriction[1,5] or added potassium[1] is rarely needed.)

Supplied: NAQUIVAL Tablets, containing 4 mg. trichlormethiazide and 0.1 mg. reserpine, bottles of 100.

References: (1) Ernst, E. M.: Current Therap. Res. **3**:167, 1961. (2) Starling, R. J.: J.M.A. Georgia **50**:442, 1961. (3) Sprogis, G. R.: Current Therap. Res. **3**:393, 1961. (4) Coffee, H. L.: Clin. Med. **69**:1561, 1962. (5) Mattey, W. E.: Indust. Med. **31**:33, 1962.

Schering

mild or moderate hypertension responds to

Naqua®

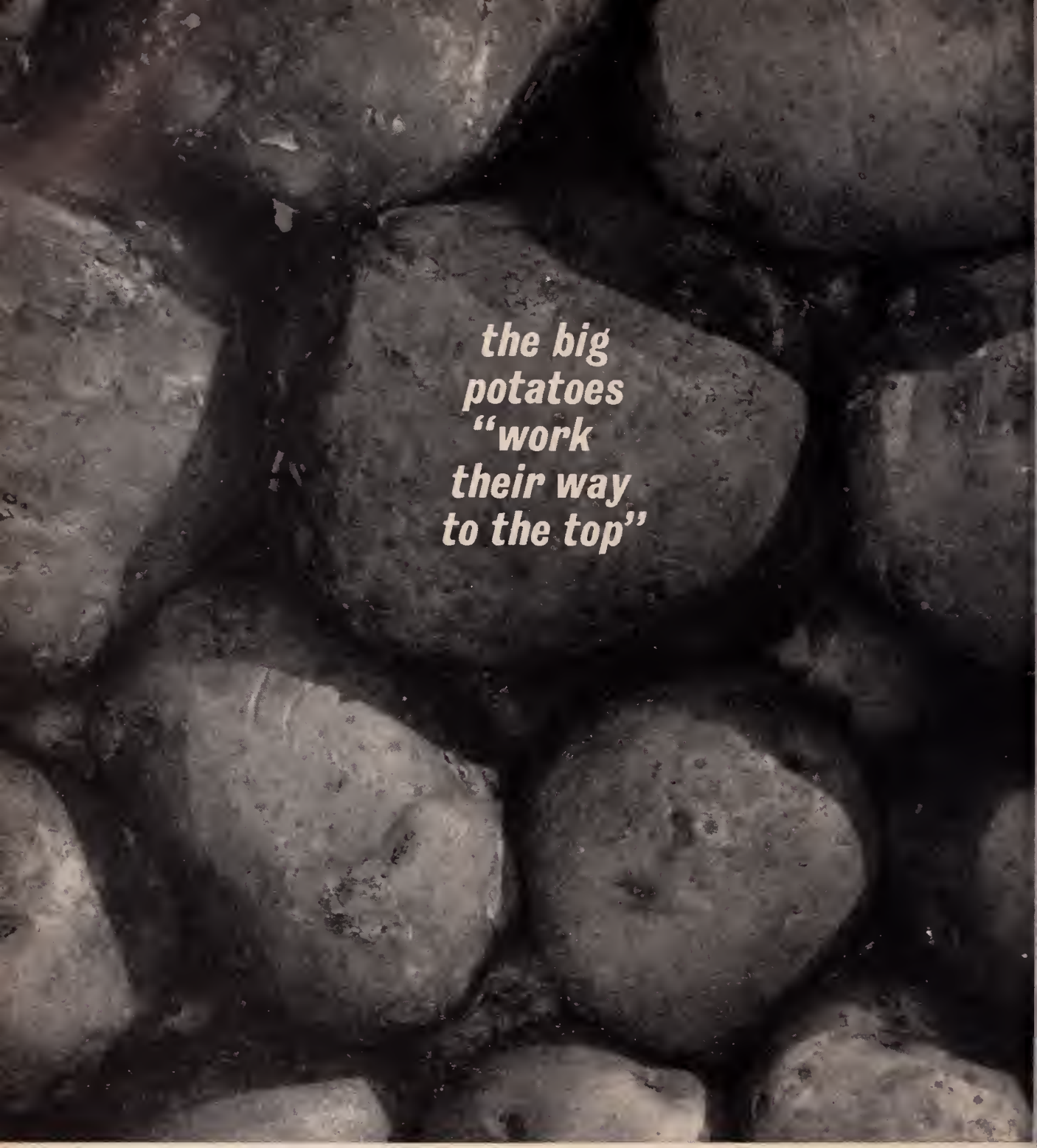
brand of trichlormethiazide

Reduces elevated blood pressure while providing symptomatic relief...permits more normal activities...liberalizes salt intake...in severe hypertension, potentiates other antihypertensives...as a diuretic, controls edema with minimal, once-daily dosage.

Supplied: NAQUA Tablets, 2 and 4 mg., scored, bottles of 100 and 1000.

For complete details concerning NAQUIVAL and NAQUA, consult Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J.

S-160



Jostle a peck of potatoes long enough and the little ones will fall to the bottom; the big ones work their way to the top. So do the larger particles of an admixture of powdered chemicals. Unless steps are taken to keep particle sizes uniform, the active ingredients will not be evenly dispersed throughout an excipient. That is why Lilly pharmaceutical chemists establish precise specifications; maintain rigid controls. A few more steps are added and the cost is slightly increased, but priceless uniformity is assured in the finished product.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

390024

Journal of the Tennessee State Medical Association

OWNED AND PUBLISHED BY THE ASSOCIATION

Volume 56 MARCH, 1963 Number 4

Parkinsonism. Aspects of Physical Treatment*

ODON F. VON WERSSOWETZ, M.D., Chattanooga, Tenn.

Though this is a progressive disease and ultimately a fatal one, physical therapy correctly applied may add years of self-care and mobility of a degree, which makes for a happier patient and his family.

Parkinson's disease is a chronic, slowly progressive involvement of the extrapyramidal system of the brain resulting in dysfunction of movement characterized by rigidity, tremor and bradykinesia.

The prognosis in parkinsonism in most cases is highly favorable for an enduring good result if treatment is started early and carried out vigorously and intensively. The delay in progression of disability is dependent to a great measure on the patient's motivation, and his desire and ability to remain active. It must be emphasized that at the present time there is no known medical or surgical cure for this disease. Some patients may show great improvement and may have what appear to be remissions, but invariably some symptoms will recur. Basically, ther treatment is symptomatic. In this disease the general medical treatment is very important, especially in the aged patient. Any concurrent disorders should be treated vigorously and should not be mistaken for complications of parkinsonism. These complications are most often due to disturbances in (1) nutrition, (2) elimination, (3) respiration or (4) joint function.

The specific treatment to ameliorate the symptoms of the disease is to relieve rigidity and tremor, to minimize the sensation of physical weakness and loss of dexterity, to prevent and relieve the associated mental depression and emotional disturbances, and to preserve functional activity. This can be accomplished to some extent by (1) drug therapy, (2) physical treatment (3) psychotherapy and (4) surgery.

The amount of improvement obtained depends on the proper adjustment of medications with the other therapeutic methods.

The physician must, after evaluating the condition of the patient, prescribe treatment on an individual basis and must re-adjust and modify it as the patient improves or worsens. The drug therapy is quite well known and should be used intelligently and in dynamic manner.

Most drugs will lose their effect at any given dosage level and a further increase will have no beneficial effect except to produce toxic side reactions. It is necessary then to anticipate this occurrence and change the drugs from time to time. The change to a new drug should be made slowly and overlapping the old one to minimize sudden reaction of deprivation. The usual method of administering a new drug is to use it at first as one dose, then after a few days as two doses, until full changeover is accomplished. When the second drug or a combination of drugs loses its effectiveness, a third drug is given. When the third drug starts to lose its effectiveness the patient has lost his tolerance to the first drug which may be given again with success. This dynamic rotation of drugs seems to be most effective in medical management of this disease.

Physical Treatment

Drug therapy alone will not prevent the progressive decompensation of functional activities which occurs in these patients if they are left to their own devices. This decompensation is characterized by a slowing

of physical activity, diminution of normal reciprocal movement, loss of dexterity, difficulty in coordination and disturbance of speech. Therefore physical treatment is of greatest importance in the total management of this progressive syndrome. The primary aim of physical treatment is to delay and to minimize the effects of the disease, to prevent the development of severe muscular disability into permanent deformities, and to preserve to the fullest extent the residual capacity of functional activities of the patient. The principal disabilities of this syndrome are tremor and rigidity causing impairment of motion and postural defects. Secondary effects are flexion contractures, muscular weakness and atrophy due to disuse or imbalanced action of the muscles, joint changes due to periarticular and thickening, impaired circulation due to vascular decompensation and abnormalities resulting in postural deforming changes.

Physical treatment should be started early and applied with adequate intensity. Most of these patients can tolerate vigorous activity very satisfactorily in spite of the apparent debilitated appearance. The selection of an appropriate program of physical treatment would depend on the severity of the disability that the patient exhibits. The program for ambulatory patients is primarily geared to keep him active, physically and mentally; therefore, it should be stimulating. Ambulatory patients may be treated in groups selected by the severity of their involvement. This encourages the spirit of competition. The program for the patient having more involvement should be geared to make him as active physically as possible. The program includes a number of different modalities which are individually selected to meet the total needs of the patient. They may be applied separately or in combination and given concurrently.

The modalities of physical treatment include thermotherapy, massage, positioning, mobilization, neuromuscular re-education and retraining in functional activities.

Thermotherapy. This is used when severe rigidity, contractures or pain are present. Heat is applied most often in the moist form because it promotes relaxation. The patient can be submerged in a hot bath or given hot packs or other forms of heat. Usually the temperature should be neutral or slightly above neutral and given for fifteen to thirty minutes. This may provide some relaxation to the patient. Applications of heat should be given cautionsly because often these patients are prone to develop heat strokes, even from hot weather, because of the disturbance in the heat regulating mechanism due to basal ganglia damage.

The application of cold packs or cold baths at about 60 to 65 F. has been helpful to some patients. Cold packs may be applied to the extremities. Usually the duration of cold applications is about 5 to 15 minutes, depending on the condition of the patient.

Massage. The role of massage in this disease is not well defined. Doshay[1] believes that vigorous massage should be used. However, clinical experience seems to indicate that a stroking type of massage is helpful to diminish temporarily the discomfort associated with rigidity or vague pain. Undoubtedly in some cases vigorous massage may be of great benefit.

Positioning program. This is indicated as in any neuromuscular disorder. It should be remembered that positions should be changed frequently and the joint should not be kept in any one place for any extended time as this has a tendency to produce contractures and cause deformities. The patient should be instructed to change position frequently, especially if he is using a wheel chair. Any patient will benefit also from standing, if necessary, on a standing table, as this will preserve his biochemical balance and prevent the tendency to developing contractures of the hips and the knees.

Mobilization. This is of the utmost importance and should be used to preserve the range of motion. It is especially valuable in cases of rigidity. Mobilization will have a tendency to preserve the elasticity of the muscles, tendons and periarticular tissues and prevent the development of adaptive contractures. In general, no joint should be allowed to assume a fixed position, especially of flexion, for any lengthy time. Mobilization, to be effective, should be carried out several times a day; it should be painless as far as possible. Only moderate force should be used to accomplish this. It is important to realize that some of the older pa-

tients may have osteoporosis and excessive force may cause pathologic fractures. The most important areas for mobilization are: (1) Hip flexors and adductors; (2) Knee flexors; (3) Heel cords and toe flexors; (4) upper chest, dorsal spine and neck flexors which have a tendency to cause kyphosis; and (5) wrist and finger flexors which have a tendency to cause also ulnar deviation.



FIG. 1. Self-mobilization of upper extremities by means of a door pulley.

The mobilization may be carried out actively by the patient, and this should be done as much as possible (Fig. 1); however, this is usually less efficient and the patient will need help of an attendant or of special equipment to accomplish a total range of mobilization which is permissible (Fig. 2).



FIG. 2. Knee-stretcher.

Mechanical passive mobilization is used to provide prolonged application of force and it is excellent in some of the larger joints. An electric rocking chair is being used by England and Schwab[2] to provide mechanical mobilization at home several times a day. This machine can be so adjusted that it can provide any motions that are desired.

Neuromuscular re-education. This should increase the voluntary control of the patient's muscles. During neuromuscular re-education the patterns of movements used should be similar to normal sequences of movements of daily activities. Normally the extremities move in a diagonal plane; the axis passing through the center of the glenohumeral joint of the shoulder of the opposite side of the body. Each movement of the extremity consists of two diagonal patterns. In one, the extremities move up and in toward the midline of the body and in the opposite direction down and out away from the midline. This pattern is used in self-care activities. In the other diagonal pattern, the extremities move up and away from the midline and return by down and in movement toward the midline.

These patterns of movement should be the basis for neuromuscular re-education and should be included in all exercises. These movements also provide a full stretch

of the muscles controlling the proximal joints. Furthermore, rotary components should be stressed because it has been found that movement in these patients occurs usually in one plane of the total pattern. The reciprocal activity is also lost and should be restored as much as possible.

Exercises should also be geared to improve co-ordination. During exercises it should be stressed that the patient complete the full extension movement of each sequence because the extensors in this disease are relatively more involved than the flexors.

Patients should also attempt to increase the breathing capacity which usually is affected. Also, included in the program should be exercises to train the patient to compensate for the loss of postural patterns.

It is important to give the patient a set of exercises which he must do at home.

Re-training in functional activities. This is the most important phase of treatment and emphasis should be placed on this so the patient is trained to perform functional activities as best he can. It is important for them to accomplish all the functional activities possible, even though the performance may be awkward or slow. The physician should warn the family and friends not to take over these functions even when there appears to be severe handicap, because this may increase the patient's dependence, depression and apathy. With progression of the disease complications will set in when these functions must be performed by an attendant, but this stage should be delayed as much as possible.

Clinical observations seem to indicate that the patient will perform activities best which are purposeful, which he acquired before the onset of the disease and which he accomplished prior to the disease with more than average skill. Therefore it is important to have a good knowledge of the patient's premorbid level of performance so the proper primary program of activities may be instituted. Functional activities should be maintained as long as possible. Special attention should be given to skilled activities which are often lost after prolonged disuse or are avoided because of severe tremor. Voluntary functional activities should be encouraged since tremor invariably occurs at rest and is usually abolished by voluntary activity. Also, consideration should be given to the environment in which these activities are performed because emotional tension, excessive noise and disturbance and exhaustion may increase the tremors. The demands imposed by these activities should be evaluated to prevent them from overtaxing the patient's endurance, patience and interest. Each activity which is demanded from the patient should have a specific objective because constructive activities afford an invaluable emotional outlet and improvement in total functional ability. Ample time should be given to the patient for performance as he may have difficulty in initiation of these activities. For true personal independence, the patient should be able to perform certain basic self-care activities. These should include the following:

(1) *Bed activities.* A considerable time of the day is spent in bed and independence here is an important asset. The first essential is that the patient should be trained to turn from side to side because if he is unable to achieve this basic act he will need assistance which will impose a strain on his family. Here it is wise to provide the patient with a relatively hard bed as this will enable him to alter his position more readily. Next, it is important that he be able to change his position on the bed, to sit up and lie down, to get on and off the bed without the help of an attendant. These activities should be evaluated and the methods of their performance should be individually selected for each patient because different patients may have to do them in different ways. The performance of these activities will also be influenced by the height and width of the bed; therefore, it is important to train the patient on a bed similar to the one he uses at home.

In training the patient to sit up in bed it may be necessary to use a hand rope fastened to the foot of the bed, or an overhead trapeze, or a Balkan bed frame by which the patient may pull himself up. Often the patient may have severe rigidity or contractures in the hamstrings which interfere with the performance of this activity. Such a patient should be instructed to place his lower extremities off the edge of the mattress as much as possible, and then throw

his arms overhead. This movement tends to increase the forward momentum of the head and trunk and allows the patient to come up into a setting position on the side of the bed. It is obvious that this method requires a full range of shoulder and elbow motion, bilaterally, which must be under good voluntary control as well as a good, general sense of balance.

(2) *Sitting activities.* As a general rule, sitting activities are complicated in the patient with parkinsonism by a disturbance of sense of balance and by the inability to initiate properly the desired motion. Balance is often enhanced by a well-fitting corset. Sitting down appears to be an easier activity than arising.

In sitting down the patient may end up crosswise on the chair seat. The correction of this position may be very difficult for a rigid patient. Such a patient should be trained to sit down correctly on the first attempt. He can accomplish this by backing up to the front edge of the chair seat and placing his legs in contact with the chair legs. He then should flex his trunk and his hips and place his hands on his knees, balancing himself on his feet; the next step is to flex his knees and slowly lower himself into the seat. The usual mistake in this pattern is that the patient does not maintain his flexed position until he is well seated. Often while lowering himself he will attempt to straighten his trunk, thus losing balance and falling backward into the chair.

Arising from the chair requires more voluntary control and skill. The sitting position seems to inhibit forward flexion of the trunk. This interferes with easy rising from a chair. To accomplish this the patient should be instructed to flex his trunk in the hips so his shoulders come over in front of the knees. The hands should be placed, for balance and support, on the arm rests of the chair if these are available, or on the front edge of the seat at the lateral sides of the thighs. The forearms should be extended as much as possible. The feet should be placed as far as possible underneath the chair with the heels being firmly placed on the floor. The feet should be spread apart, about 6 to 8 inches or more, to provide an adequate base of support. Then the patient should move forward and up as rapidly as possible to a standing position.

It is obvious that the patient should be trained to sit and arise, unaided, from various heights and kinds of chairs. Training should be carried out on high chairs with arms, standard chairs with and without arms and even from low armchairs. For the patient with parkinsonism it is better to use a chair with a seat that is comfortable but not soft. The seat cover should be smooth. Often it is necessary to adapt the chair to the patient's condition. This may mean that the seat height may need to be altered so the patient's feet are placed in contact with the floor at right angles to the legs. Sometimes the back legs may be raised one or more inches. This will permit easier forward movement of trunk; however, this may be dangerous for a patient who has inadequate balance awareness, as he may fall out of the chair.

Sitting training should also include training and transfer from and to a commode without help. Often a built-up toilet seat may permit the patient to utilize the commode adequately.

(3) *Gait training.* The usual gait of these patients is propulsive and shuffling and is associated with poor posture. The posture is characterized by excessive dorsal kyphosis, flexion of the neck, hips, and knees, which further tends to disturb the body's center of gravity and intensifies the tendency to propulsion. (Fig. 3.) This condition is further complicated by defective postural reflex mechanism which is impaired by alteration in kinesthetic and proprioceptive responses. All these factors tend to shift the body weight forward toward the ball of the foot. This disturbs the patient's equilibrium and he has a tendency to fall forward. He tries to recover his balance by quick short steps.

It is obvious that the gait training must include postural re-alignment, retraining in increased length of stride and controlling rhythm and speed of cadence.

The patient should have exercises to develop good posture and should learn to shift his weight backward.

The posture in parkinsonism may be helped by providing wedges on shoes. If



Fig. 3. Gait training in parallel bars.

the patient has a propulsive gait, wedges on the toes of the shoes may be of help In retropulsion wedged lifts on the heels may be needed. However, in certain cases where there is persistent tightness in the heel cords which cannot be mobilized, or where there is rigidity in the triceps surae muscles and the heel cannot descend enough to touch the floor, on each step a stretch reflex is set up which further complicates this condition. In such cases wedges on the heels of sufficient height to prevent excessive stretching of the posterior calf structures will often help to eliminate festination. This will occur despite the fact that the gravity line is displaced more forward.

These patients often have difficulty in initiating forward progression. It is important to develop in the patient a method which will trigger off his step. This may be a short backward step of the same extremity which is then quickly moved forward while the body weight is shifted to the supporting extremity, or the patient may shift his weight laterally on the supporting leg while the other one is moved forward. Other methods include the patient bending forward, grabbing or tapping his knee, coming up and moving forward on that leg, or the patient swinging his arms forward. Most patients should be taught to regain a longer step and should try to maintain good rhythm in walking.

In general, it may be said that the rehabilitation of ambulation must emphasize: (a) back and head to be held as erect as possible; (b) knee as straight as possible when the weight is on this extremity; (c) step should be made with heel contact on the floor and no toe drag or shuffle; (d) correct push-off from the toes; (e) swinging-through from the hips with knees straight; and (f) arm swinging in reciprocation.

When the patient obtains good ambulation, then he should be trained to master steps, stair climbing and descending.

(4) *Self-care activities.* Essentially the aim of the program is to maintain or re-establish in the patient all the possible self-care and hand activities, with or without orthetic appliances. The training program will depend on the stage of disability which the patient exhibits. It must also be anticipatory in the sense that the patient should be trained in the activities in which he may become deficient.

It is obvious that the training in new activities is integrated progressively as the need may arise. These activities should include: (a) eating activities; (b) dressing activities; (c) toilet activities; and (d) other functional activities as necessary.

Writing is a good hand activity and develops a good pattern of movement, and it should be used as a home activity. The patient should write for a certain period of time each day. If the patient has difficulties in accomplishing hand activities, special adapted orthetic devices should be utilized. (Fig. 4.) These help the patient to elevate the arm by providing a seesaw motion which balances the forearm and permits the hand to function. In other cases they may aid in gripping or holding. There are various types of such devices and they should be selected to meet the needs of the patient.

For the self-care activities the wheelchair should not be forgotten. However, its use should be delayed as long as possible. The

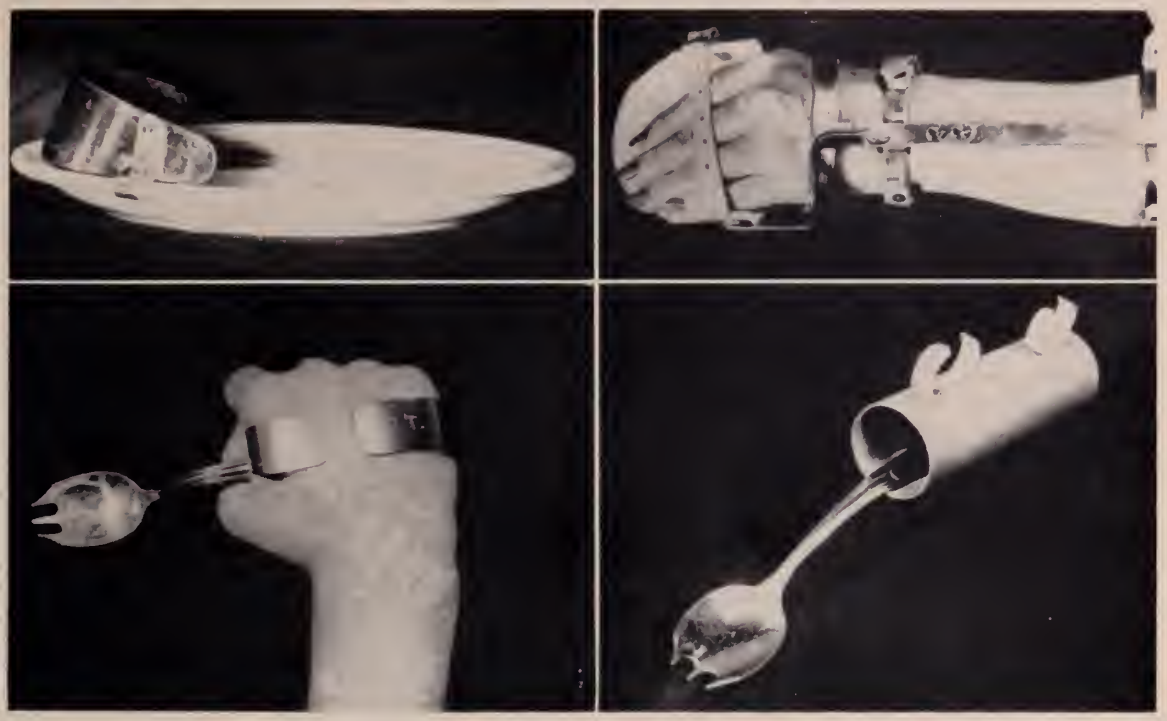


FIG. 4. Adaptive orthetic devices. A plate with a rail (left upper); mobilizing splint (right upper); metacarpal wrap with a spark (left lower); a spark with built-up handle and two rings (right lower).

wheelchair should be prescribed individually depending on the remaining capabilities and particular needs. The average patient is often able to use a wheelchair of the standard type. Such chair should have large wheels with the rims in the rear in order to minimize and prevent the tendency of the patient to incline his body forward. When a wheelchair is used a great deal, the patient should be watched closely to prevent the development of contractures and deformities in the lower extremities. The wheelchair rims have to be modified to provide a larger grasping surface for the patient with a poor grasp. (Fig. 5.) It is important that these patients be independent from the whelchair if one is necessary.

(5) *Speech therapy.* Most patients with parkinsonism will show a speech defect due to a combination of factors, such as the forward position of the trunk which decreases the vital capacity and prevents adequate relaxation, and the presence of the upper dorsal kyphosis which flexes and abducts the arms thus limiting the chest excursion and the bradykinesia of the facial, lingual and buccal muscles which causes poor control and agility of the articulators. Such patients begin speech with inadequate breath



FIG. 5. Specially adaptive wheelchair to patient's needs.

intake because of their slowness and limitation of inspiration. The breath is then rapidly and inefficiently utilized. Both contribute to the speech defect which is characterized by altered rate of speech in which

the words are spoken rapidly so they run one into another, and eventually the individual words cannot be differentiated and the speech becomes mumbled and unintelligible. There is also a diminuendo of the voice which seems to decrease in volume and support as the disease progresses. Also, the speech has often indistinct articulation which is primarily due to bradykinesia of the accessory vocal muscles. These muscles cannot move quickly enough to produce the desired sound. Each component factor of this disability can be favorably influenced by recognition and treatment.

(6) *Environmental adaption.* In the rehabilitation of these patients it is necessary to pay attention to the environment adaptation at home as this may help the patient to remain independent for a longer time. Such articles as loose scattered rugs and unnecessary bric-a-brac should be removed since they can cause the patient to fall and injure himself. Injuries such as fractures in these patients are serious complications and result in marked increase in the rigidity. It is obvious that all possible efforts should be made to adapt the home of the patient and to make him stay as functional as possible. The bed can have vertical rungs which will provide stability for moving about in bed. A wooden bed-board placed under the mattress will give him a firm surface on which he can move easier to come to a sitting position. The mattress should be firm. A rope may be attached to the end of the foot of the bed which will help the patient to pull himself up. Often a sliding board will help to permit the transfer from the wheelchair to bed. If a wheelchair is used, the bed should be the same height as the seat of the wheelchair; this will permit easier transfer without the necessity of lifting the body. Other items of the bedroom should be adapted in their height and placement to the needs of the patient.

Summary

The physical treatment is as important a part of care as the administration of the anti-parkinsonism drugs. The drugs by themselves may relieve the rigidity and tremor but very seldom decrease bradykinesia. There is a loss of the pattern of motion, especially of the rotary component of the motion. In addition, the patient may have the inability of initiate movement adequately and perform it in the right sequence. Therefore, all patients with parkinsonism should be on an intensive program of physical treatment at home to maintain their capacities at their fullest. If this is utilized, under intelligent supervision, the patient should remain independent for a long time. It is up to the physician to encourage the patient to the utmost to maintain and retain his functional capacity.

References

1. Doshay, L. J.: Parkinson's Disease, JAMA 174:1962, 1960.

2. England, Albert C. and Schwab, R. S.: The Management of Parkinson's Disease, AMA Arch Intern Med 104:439, 1959.

3. von Werssowetz, O. F.: Parkinsonism, Soc Exp Med Sci (India) 4: 1960-61.

Private industry has donated more than $425,000 to the AMA-ERF Student Loan Fund. This support, together with generous contributions from physicians, has made it possible for thousands of medical students, interns and residents to obtain low-interest bank loans to help finance their medical education.

Pocket Survival Kit*

EDWARD F. SKINNER, M.D.,* Memphis, Tenn.

This simple emergency kit can readily be carried in the pocket and has a variety of uses in emergency situations. Its instruments can be used for a temporary tracheotomy until more suitable equipment can be obtained. They can be used to open the chest in cardiac arrest for internal cardiac massage, or can be used to decompress a tension pneumothorax either of the spontaneous or traumatic variety. Other uses will be less frequent and are limited only by the ingenuity of the owner. Dangerous accumulations of fluid in the body can be instantly relieved,—for example, following a thyroidectomy when sudden fluid accumulation in the wound can cause severe respiratory distress. In an emergency, even in the hospital, it is surprising how difficult it sometimes is to find a sterile knife. Occasionally, after a pneumonectomy dangerous amounts of fluid or air will collect in the empty hemithorax and can be relieved immediately by the needle in this little kit.

Description of Instruments

(1) A 2 cc. size Steri-tube #300 made by Becton-Dickinson. A small wad of cotton is placed in its bottom to protect the point of the knife.

(2) A Bard-Parker #3 knife handle and a #11 spearpoint knife blade.

(3) A 13 gauge needle 2 inches long, (Becton-Dickinson LNRS needle). We purposely file down the point on this needle so it is not too sharp and that the bevel may be a little shorter. This is to prevent any possible damage to the esophagus in doing a tracheotomy or to the lung in decompressing a pneumothorax.

(4) A small stylet can be used to clear the needle of any dried blood or pus, etc. It comes with the needle; it should be bent at a right angle near one end to keep it in the needle till needed.

The above articles are readily autoclaved and assembled.

Method of Use

(1) *Tracheotomy.* A small incision is made with the knife through the skin over the larynx between the cricoid and thyroid cartilages. The 13 gauge needle is then inserted directly between these two cartilages into the trachea. If oxygen is available it can be connected to the needle or simply held to flow over the needle hub. The oxygen is heavier than air and thus readily flows into the hub of the needle. The added air exchange supplied by this needle will usually keep the patient alive twenty or thirty minutes until a regular tracheotomy set-up can be obtained or a bronchoscopy be done. Many of us have had the unfortunate experience of seeing a child with a foreign body in the tracheobronchial tree expire before he could reach a hospital, this needle would be life saving in such circumstances. If more air is required the needle can be removed and the knife blade thrust into the trachea and removed, following which the handle of the knife is placed into the trachea and turned slightly sideways to hold the tracheal cartilages open.

(2) *Cardiac arrest.* We usually prefer to try external cardiac massage first. However, if no results are obtained in twenty or thirty minutes, serious consideration should be given to internal cardiac massage. An eight to ten inch incision is made between the left fourth and fifth ribs anterolaterally. The pleural space is opened and the heart massaged between the thumb and four fingers. If results are not obtained soon the pericardium is opened anterior to the phrenic nerve and the heart massaged within the pericardium. Surprisingly enough the above open thoracotomy (which is frequently done under unsterile conditions) almost never results in a wound infection. Even should an empyema occur it can be treated later in a more leisurely fashion by the usual methods. If sterile

*From the Department of Surgery, University of Tennessee School of Medicine, and the Baptist Memorial Hospital, Memphis, Tenn.

gloves are not available for the internal cardiac massage, one should not hesitate to perform cardiac massage internally with the bare hands. No time should be wasted waiting for skin disinfectants if they are not immediately available. Later on when more help is at hand a rib spreader can be inserted, and an anesthetist with an endotracheal tube and anesthesia machine is invaluable. Until then, an assistant can do mouth-to-mouth breathing.

(3) *Pneumothorax either of the spontaneous or traumatic type.* Occasionally such a pneumothorax will increase alarmingly and even become fatal if help is not obtained promptly. The usual location for relief of this type of pneumothorax is the second anterior interspace over the affected lung. Again a small skin incision is made with the knife and then the 13 gauge needle is inserted into the pleural space. The pneumothorax (or a fluid collection in the pleural space) can then be decompressed very simply by putting one finger over the hub of the needle during the patient's inspiratory phase and removing the finger during the expiratory phase. If the leak in the lung is a large one and continues, arrangements should be made to insert a large sterile urethral catheter into the pleural space in the same location. This catheter is connected by sterile tubing to the usual type of water trap bottle as described in all standard text books of surgery for the treatment of empyema and pneumothorax.

(4) *Postoperative accumulations of fluid* in dangerous quantities can be relieved quite simply with the knife, inserting it over the point of maximum bulging.

(5) *After pneumonectomy* large quantities of pleural effusion, blood or air may suddenly endanger the patient's life due to massive shift of the mediastinum and respiratory failure. In such a case the 13 gauge needle is inserted into the second anterior interspace over the empty hemithorax after first making a small incision in the skin with the scalpel. The needle is left open without putting a finger over its hub, thus converting the affected hemithorax into an open pneumothorax. This allows the heart to shift back to its more normal location. A chest roentgenogram can then be obtained with the portable machine and additional therapy be given as indicated. In certain of these cases it may be advisable to place a large sterile urethral catheter into the pleural space on the affected side and connect it up to a water trap bottle.

(6) *Unusual surgical emergencies* can be treated with these instruments as the need arises. I might mention the massive mediastinal emphysema which sometimes occurs in injured persons following rupture of the trachea or bronchus; large amounts of air collect subcutaneously in the neck and endanger the patient's life by pressure on the trachea. To relieve this condition a two inch incision is made horizontally in the neck above the sternal notch; then a finger is inserted behind the upper sternum, opening up the space below the sternum to the outside and relieving this excess air accumulation. A sterile glove should be used if available but I would not hesitate to use the bare hand if necessary to save a life. More definitive repair of the injuries can then be done as indicated.

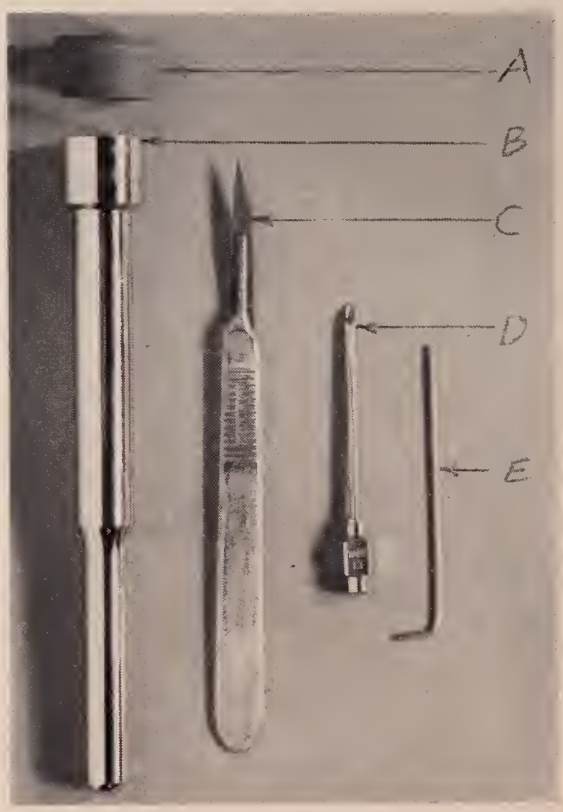


FIG. 1. A. Rubber cap for Steri-tube. B. Steri-tube #300 (2 cc. size) made by Becton-Dickinson. C. Bard Parker #3 knife handle and #11 spear point knife blade. D. 13 gauge needle two inches long (Becton-Dickinson LNRS needle). E. Wire stylet for the needle, with tip bent at right angles.

CLINICAL NOTES FROM THE TENNESSEE HEART ASSOCIATION

HYDROXYZINE AS AN ANTIARRHYTHMIC

PHILIP H. LIVINGSTON, M.D.,

Chattanooga, Tenn.

An additional antiarrhythmic would be welcomed. Quinidine, our most effective antiarrhythmic agent, is not without its dangers or disadvantages. Procaine amide is useful principally for ventricular arrhythmias. It, also, cannot be used indifferently. Hydroxyzine has been suggested as an antiarrhythmic agent[1,2] and it has been reported to be relatively nontoxic. We have attempted a clinical evaluation of its use in irregular heart action.

Material and Method

The sample consists of 75 patients of whom 51 were men, 24 women. The age varied from 24 to 85 years. There were 47 patients who had organic heart disease, 7 with questionable heart disease and 21 without clinical evidence of heart disease. Of those with organic heart disease, 46 had arteriosclerotic heart and hypertensive heart disease (including active and past myocardial infarctions), 2 with rheumatic heart disease, one chronic cor pulmonale and one with syphilitic heart disease.

It was quickly realized that evaluation would be difficult for the following reasons. The critique was based partly on subjective considerations. Arrhythmias frequently disappear without medication. Simple sedation often suffices to stop ectopic beats. Arrhythmias not present when the EKG is taken may be present at other times. The patient may state the arrhythmia has cleared yet it is evident on physical examination. In myocardial infarction arrhythmias usually disappear after a day or two without medication. In the field of prophylaxis estimation is even more difficult. There may be no recurrences or the episodes may be widely separated.

It is clear, then, that what we have is *presumptive* evidence. It is certainly highly suggestive, however, when an arrhythmia disappears upon the administration of a drug, returns when it is not administered and stops again when the drug is renewed.

Types of Arrhythmias

There were 57 instances of ventricular extrasystoles, 13 of auricular extrasystoles and 4 were combinations of these. One patient had AV nodal ectopic beats. Prophylaxis was attempted against further attacks of paroxysmal tachycardia in 9 auricular fibrillation in 2, auricular flutter in 2 and ventricular tachycardia in one.

Only oral medication was employed. The usual dose was 25 mg. q.i.d., though occasionally 50 mg. q.i.d. was used. The drug is not without side effects though these all cleared up readily upon cessation of its use. The most common one was sleepiness.

Fourteen patients could not take the drug in adequate amounts, i.e., as much as 25 mg. q.i.d. In 12 cases in which it apparently would have continued to be effective it had to be stopped because of:

Sleepiness in 6, nervousness in 2, dizziness in 1, sore mouth in 1, weakness in 1, and prevented sleep in 1. In 2 patients where it appeared it would be ineffective it was stopped on account of sleepiness. It caused no significant hypotension. In the cases of acute myocardial infarction it served as a useful sedative.

Results

Results were graded as follows: *good* when the arrhythmia was abolished or numerous ectopic beats eliminated; *fair* when there was a significant decrease in the number of extrasystoles; *no response* when there was a slight decline or none. In several instances the drug appeared to be temporarily effective, losing its efficacy in a matter of weeks.

The drug appeared to be equally effective irrespective of sex and age, and was as useful in patients with organic heart disease as in those with presumably normal hearts. All types of ectopic beats appeared to be equally responsive.

There were 27 good results (30%), 11 fair (about 15%), 6 temporary effects; 24 patients (about 30%) showed no significant response. In 3 patients the drug was effective with quinidine when either drug was

inadequate alone. In one case the drug was effective when quinidine was ineffective. Three patients who did not respond to hydroxyzine also did not respond to quinidine. No attempt was made to compare the efficiency of the two drugs.

Note should be made of its use in the acute stages of myocardial infarction. It was used in 4 patients. In 3 cases the results seemed excellent, in 1 patient hydroxyzine diminished, but did not stop, the frequency of ectopic beats.

In the prophylaxis of paroxysmal auricular tachycardia it appeared to be effective in 2, possibly effective in 3 and ineffective in 4 patients. Auricular flutter seemed to be prevented in 1 patient and was ineffective in another where it was stopped on account of sleepiness. Against attacks of auricular fibrillation and of ventricular tachycardia it was ineffective in single cases.

Conclusions

(1) Hydroxyzine was found to be moderately effective (30 to 45%) against ectopic beats present in organic heart disease and in normal hearts.

(2) It shows side effects that occasionally limit its use. These clear up readily on stopping the drug.

(3) It possibly has value as a prophylaxis against paroxysmal rapid heart action.

(4) In acute myocardial infarction it acts as a useful sedative and may aid in the prevention of dangerous ectopic beats and paroxysmal rapid arrhythmias.

*Supplied as VISTARIL (hydroxyzine pamoate) by Pfizer Laboratories.

References

1. Burrell, Zeb L., et al.: Treatment of Cardiac Arrhythmias with Hydroxyzine, Amer. J. Cardiol. 1:624, 1958.

2. King J. C.: Int. Rec Med 172:669, 1959.

Acute Myocardial Infarction—A Ten Year Study of Consecutive Cases Managed and Evaluated by the Same Physician. Tillman, Clifford, Arch. Int. Med. 111:159, 1963.

Dr. Clifford Tillman of Natchez, Mississippi analyzes the management of his patients with acute myocardial infarction over a ten year period. The study includes 102 cases surviving longer than 24 hours.

All patients received essentially the same treatment and care. Except for 3 cases treated at home, all were hospitalized. Narcotics were used freely. Phenobarbital was used in small frequent does. Few tranquilizers and no unusual drugs were included. Disturbances of rhythm, congestive heart failure, and intercurrent infection were treated promptly.

During the first week of hospitalization most of the patients were examined four or five times daily and at least twice daily during the remainder of the hospital stay. "A diligent approach to prevention of 'stasis of the whole patient' was characteristic of the professional care. Instruction and deep breathing exercises and in passive and active leg movements were carried out to each patient and his nurses together; the patient was kept moving in bed during the normal waking hours. The frequent visits of the physician to the patient's bedside gave ample time for encourage- and mood elevation without the use of a battery of drugs." Bedside commodes were mostly used. Males were allowed to stand to void. "Usually chair activity began after the first week; walking about the room followed shortly."

Anticoagulants were not used at all.

The overall mortality rate was 11.7%. These figures compared favorably with those of other studies.

This series is unique in that all patients were managed by a single clinician, who was readily available, with no house officers or consultants. The management approach remained essentially unchanged during the entire period.

The author also makes the point that in many such studies the most important variable emphasized is the use of anticoagulants. He negates the philosophy of over-emphasizing the use of anticoagulants and points out that "intensive professional care and the management of patients with acute myocardial infarction is thought to be the most important aspect of current therapy." (Abstracted for the Middle Tennessee Heart Association by Herbert Kaplan, M.D., Nashville.)

STAFF CONFERENCE

Nashville General Hospital*

Cystic Hygroma

*From the Surgical Service, Nashville General Hospital, Nashville, Tenn.

DR. JOHN L. SAWYERS: This morning we are going to consider an interesting pediatric surgical case that was recently treated on our wards. Dr. Harold Dennison will present the case history.

DR. HAROLD DENNISON: This male infant was born one month ago in this hospital following an uncomplicated spontaneous delivery. The mother's obstetric history was significant in that her second child died at 2 days of age because of hemolytic disease of the newborn. Her third child developed neonatal jaundice but survived following an exchange transfusion. The mother's blood type was O Rh negative.

On admission to the Nursery, the infant weighed 8 lbs. 2 ozs. Notable physical findings were icterus, liver and spleen both palpable 2 finger-breadths below the costal margins. Presenting from the posterior triangle of the right side of the neck was a thin walled, soft, cystic, 12 by 9 by 8 cm mass. The mass transilluminated light, and a fluid wave was demonstrable. No bruit could be heard over the mass. (Fig. 1.) The



Fig. 1. Three week old infant with cystic hygroma arising from the posterior triangle of the neck.

remainder of the physical examination was within normal limits.

Laboratory examination of cord blood revealed the following: Hgb. 7.7 Gm.; blood group A, Rh positive; Coombs' test positive; serum bilirubin 0.8 mg. per cent direct, 18.5 mg. indirect. Three hours following birth, exchange transfusion of 500 cc. of low titer O negative blood was performed via the umbilical vein. After exchange the bilirubin was 6.2 mg. per cent. At the time of exchange transfusion penicillin, 75,000 units daily and streptomycin, 40 mg. b.i.d., were begun. Eight hours later, because of a rapid rising bilirubin level, a second exchange transfusion of 500 cc. of low titer O negative blood was carried out. During the subsequent 72 hours three more exchange transfusions of 500 cc. of low titer O negative blood were done, because of rising serum bilirubin levels. The maximum bilirubin level before exchange was 3.2 mg. per cent direct, and 24.5 mg. indirect. Following the 5th exchange transfusion the indirect bilirubin was 0.7 mg. per cent and indirect 8.9 mg. Hgb. at this time was 10.4 Gm.

At about the time of the 5th exchange transfusion, the child was noted to take feedings poorly and his general condition appeared to be deteriorating. Because this was thought to be due to infection, intravenous therapy with chloromycetin and staphcillin were begun. Ten blood cultures proved to be sterile. Over the next 6 day period the child began to take feedings well and remained afebrile. The serum bilirubin level slowly fell and his clinical icterus diminished.

After 6 days, parenteral therapy with chloramphenicol (Chloromycetin) and methicillin (Staphcillin) was discontinued. A chest film made at this time showed the heart and lungs to be within normal limits and showed no evidence of thoracic or mediastinal extension of the large cystic mass in the neck. At this time surgical consultation was sought regarding the cervical mass. The impression was cystic hygroma arising in the right posterior cervical triangle. Surgical excision was recommended and plans were made for the procedure to be performed at such time as the infant regained his birth weight. By the 19th day of life the infant's weight was 8 lbs. 7½ oz. The PCV. at this time was 20 volumes per cent. Because of contemplated surgery the child was typed and crossmatched and transfused with 20 cc. of whole blood per pound of body weight. Following the transfusion the PCV. rose to 42 percent.

On the 24th day of life the infant was carried to the operating room. An ankle cutdown was done and tracheal intubation was performed without anesthesia; then anesthesia was induced. An elliptical incision was made over the large mass in the neck. Careful hemostasis was maintained. Skin flaps were elevated over the full extent of the mass. Deeper dissection was carried out along the surface of the cystic mass protecting the vital structures of the neck. Many finger-like projections of the cystic structure were quite adherent to the muscle bellies and freed from them only with careful dissection. Several other "fingers" projected downward between muscle bellies to reach the level of the cervical spine. After a tedious dissection, the specimen was excised intact (Fig. 2). The wound was then thor-

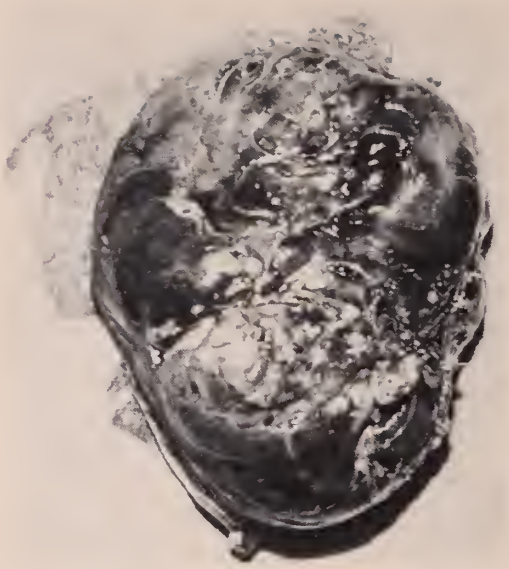


FIG. 2. The excised thin walled, multiloculated cystic hygroma.

oughly irrigated and small polyethelene catheters were placed through stab wounds into the depth of the operative field. The incision was then closed in anatomic layers. No attempt was made to tailor the redundant skin. After closure of the wound was completed the catheters were connected to small vacuum bottles. The operative procedure was well tolerated except for one brief period of mild cyanosis. Because of this pneumothorax was suspected. Chest films at the termination of the procedure revealed a 20% pneumothorax on the left. Fifty cc. of air were aspirated from the left pleural cavity and films at this time showed complete re-expansion of the left lung.

Histologic examination of the excised specimen revealed no abnormalities of the overlying skin. The cystic structures were made up of connective tissue septa with endothelial lining cells. In some areas the septa were infiltrated with chronic inflammatory cells and occasional aggregates of lymphocytes. The pathologic diagnosis was *cystic hygroma.*

Postoperatively, the infant was returned to the Nursery and placed in a moist air croupette. He was begun on procaine penicillin, 150,000 units b.i.d. Four hours postoperatively oral feedings were begun and were tolerated. On the 1st postoperative day the PCV. fell to 33 per cent. Following a transfusion of 30 cc. of whole blood, the PCV. rose to 37 per cent. The postoperative period was uneventful except for intermittent unexplained tachypnea and tachycardia of three days duration. On the 2nd postoperative day the subcutaneous catheters were disconnected from suction. On the 3rd postoperative day the catheters were removed. At this time the skin flaps were adherent. On the 6th postoperative day, penicillin was discontinued and skin stitches were removed. On the 31st day of life and the 7th postoperative day, the incision was healing well, the infant had gained weight (weight 9 lb. 3 oz.) and was ready to be discharged home from the hospital.

DR. SAWYERS: Thank you Dr. Dennison. Before discussing cervical cystic hygroma, we will hear from Dr. Donald whose Pediatric Service did such an excellent job in treating the erythroblastosis fetalis.

DR. WILLIAM D. DONALD: The clinical diagnosis of erythroblastosis due to Rh incompatibility was obvious with the history and physical findings, and this diagnosis was rapidly confirmed with the laboratory data as given. There was also certainly no question of the necessity of immediate exchange transfusion in a child with a history of two previously affected siblings, a hemoglobin of 7.7 Gm. and bilirubin levels as stated. The necessity of "exchanging" this baby five times was based on the rising bilirubin and was done in order to keep the bilirubin below toxic levels and thus prevent kernicterus. The question of priming this child with serum albumin prior to exchange transfusion as suggested by Odell[1] might be raised. Odell has shown that by this procedure, especially in small infants, one can certainly increase the amount of bilirubin removed by the exchange. Perhaps this procedure may become more routine when further evaluation is available. As noted in the history, on the fourth hospital day after the fifth exchange, it was thought that the baby probably had sepsis and chloramphenicol and methicillin were begun. Blood cultures were sterile and this diagnosis was probably not correct; however, everyone recognizes the difficulty in making the clinical diagnosis of sepsis in the newborn and the high mortality rate if therapy is not instituted promptly. It, therefore, seemed urgent and necessary to us to alter the antibiotic coverage at this time. In spite of this episode and the necessity of five exchanges, the patient did extremely well and was ready for surgery by the third week of life.

DR. SAWYERS: Thank you Dr. Donald. The surgical service was asked to see the child because of the large cystic mass arising from the right cervical region. A diagnosis of cystic hygroma was easily made.

The term cystic hygroma may be considered redundant since all hygromas are by definition cysts or sacs distended with

com the
Executive
Director

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

128th Annual Meeting Program in This Issue

● This issue of the Journal is the number containing the complete program for the 128th annual meeting to be conducted in Knoxville. In general presentations, you will find that five guest speakers will address,the membership on subjects of interest in scientific medicine. Sixteen specialty societies will conduct their sessions concurrently with the Tennessee State Medical Association. In the general program, interesting panel discussions and symposia will be presented.

Scientific Program Should Be of Interest To Tennessee Physicians

● The scientific program will include out-of-state guest speakers, as well as prominent Tennessee physicians. All general sessions will be conducted in Knoxville at the Andrew Johnson Hotel. Specialty society programs, banquets, luncheons and business meetings, as well as scientific presentations, will provide outlets for scientific papers, business and other discussions. There will be interesting medical exhibits, a noted physician who will be guest speaker at the President's Banquet who is also a member of Congress, Committee meetings, the House of Delegates, meetings of the Woman's Auxiliary, as well as other special sessions.

President's Banquet

● The President's Banquet and Social Hour will be held in the C'est Bon Club on Alcoa Highway in Knoxville. The Social Hour will precede the President's Banquet on Monday Evening, April 8th.

Guest speaker at the banquet will be Dr. Durward Hall, a member of Congress from the State of Missouri. Reservations are limited in the C'est Bon Club. Get your tickets in advance and be sure and obtain them at the time of registration.

House of Delegates April 7-9

● Sessions of the House of Delegates where a full agenda will be presented are scheduled for Sunday, April 7th and Tuesday, April 9th, in the Andrew Johnson Hotel.

Hadley Williams To Replace Jack Drake on TSMA's Staff

● Mr. Hadley Williams, who has been serving for a limited time as an Executive Assistant on the TSMA staff, will assume the duties of the Public Service Director, replacing Jack Drake, following the annual meeting of the Association in April. Drake has resigned to accept a position with the American Medical Political Action Committee.

King-Anderson Again —Remember These Bills (H.R. 3920 and S 880)

● President Kennedy outlined his social security proposal for health care of the aged in his message to Congress February 21st. On the same day, Representative Cecil King (D., Calif.) introduced the Administration Bill in the House under H.R. 3920 and Senator Clinton P. Anderson (D., N.M.) brought it before the Senate in Bill S 880. Basically, the proposal is similar to the Anderson-Javits Bill which was rejected by the Senate last year. It is using the same arguments and same political troupes are pushing it. (See opposite page—Tennessee Ten.)

TSMA's Consulting Committee with Governor Urges Expansion of Kerr-Mills Program in Tennessee

● A consulting Committee to the Governor, represented by physicians from the three grand divisions of the state, met with the Governor on January 19th to present recommendations to broaden the Medical Assistance to the Aged Program (Kerr-Mills) in Tennessee. These measures have not been acted upon but will be considered by the Governor and his administrative advisers.

The recommendations included: (1) That the income limits for eligible single persons 65 years of age and over, be raised from $1,000 up to $1,300 per year; and for married persons, 65 and over, income limits be raised from $1,500 to $1,800 per year. This change is needed and will enable many medically needy persons over 65 to obtain assistance under the program. (2) That the number of days of hospitalization for eligible persons over 65, be increased by an additional 5 days when necessary and upon certification by a physician. The plan now provides for 15 days hospitalization.

The Committee also recommended that some further study and broadening of the amounts so that families of needy aged patients can supplement hospitalization costs.
(3) That study be made to further consider broadening the drug formulary for a few useful drugs; and (4) that the nursing home care program be amended to where the family of a patient could supplement the amount provided by the state ($80) and be increased up to a maximum of $150.

Public Education Needed

● Also, in the recommendations under the MAA program, it was pointed out that the State Public Welfare Department should put forth a maximum effort and sponsor a program to inform the public generally, physicians and hospitals, about the program available for health care of the needy aged.

Eight-Point Program Presented by AMA

● The American Medical Association's Board of Trustees has adopted a new eight-point program designed to help achieve a better life for the nation's aged: (1) Re-evaluation of attitudes toward the elderly; (2) implementation and strengthening of the Kerr-Mills Law; (3) changes in income tax laws which would aid the aged; (4) continued expansion of health insurance and prepayment plans; (5) re-casting retirement policies; (6) increase in nursing home facilities; (7) expansion of community programs for the aged; and (8) emphasis on mental health among the aged.

Health Insurance Information Covering Tennessee

● A recent publication of the Source Book of Health Insurance Data revealed the following concerning the Tennessee population. The report shows 68.3% of the civilian population is covered by some form of health insurance protection. Tennesseans covered by hospital expense number 2,474,000; for surgical expense, 2,276,000; regular medical expense, 1,530,000.

● As reported, insurance premiums in Tennessee total $118,738,000. Of this amount, commercial insurance companies received $86,031,000 and Blue Cross-Blue Shield and other hospital-medical plans received $32,707,000. These figures are the latest released as of the end of 1960.

Public Service

THE TENNESSEE TEN

(The following information has been extracted from the AMA Legislative Roundup and factually reflects the pertinent information relative to the new King-Anderson Bill. This is must reading for physicians who wish to take an active part in helping defeat this socialistic legislative proposal.)

New King-Anderson Bill Introduced in 88th Congress

● The Administration's new medicare (or "Fedicare") bill was introduced in both the House and Senate by Representative Cecil King, (D.-Cal.) and Senator Clinton Anderson, (D-New Mex.).

The measure is H.R. 3920 and S. 880. It is basically the same proposal as the Anderson-Javits bill which was rejected by the Senate last year.

As AMA puts it, "It is the same tired and twisted arguments, and the same political troops are pushing it."

"Under the plan, the beneficiary would have three options as far as hospitalization is concerned . . . (1) He could take 90 days of hospitalization subject to a $10 a day deductible for the first nine days, or at least $20, or . . . (2) Up to 180 days of hospitalization with the patient paying the first 2½ days of average cost, or . . . (3) 45 days of hospitalization without a deductible. . . . The bill would also provide 180 days of nursing home care after transfer from a hospital; all costs above the first $20 for hospital outpatient diagnostic services; and 240 home health care visits in a calendar year.

"The new Administration proposal differs from last year's Anderson-Javits bill in two ways: (a) It would provide benefits through general revenue to those aged who are not under social security; (b) The "option" to use private carriers has not been included.

Big Tax Jump

● "As in previous Administration proposals, the bill would increase social security taxes for employed persons by ½% (¼% employee, ¼% employer) and raise the tax base from $4,800 to $5,200 . . . Mr. Kennedy said the health care program would cost $5.6 billion for the first four years. . . . This would average out to $1.4 billion per year. . . . Calculations by the AMA's Department of Economic Research set the first year cost of the program in 1965 at about $2.3 billion. . . . The Department also calculated that at least 31 states would pay more in social security and general taxes than they could anticipate in benefits returned per aged individual. . . . The Administration has continued its mathematical sleight of hand by claiming the bill would mean a social security tax increase of $13 a year for each worker. . . . Actually, for those earning $5,200 a year, the tax increase would be $27.50 annually.

Kennedy Inconsistent

● "In commenting on the President's proposal, Dr. George M. Fister, AMA President, declared: "There is no fundamental difference between this latest Administration scheme of health care for the aged and others which have been rejected in past sessions of Congress." . . . He said it would force increased taxes on wage earners and employers to buy

limited health care for millions of people over 65 who are financially able to take care of themselves. Dr. Fister pointed out that it was inconsistent for the Administration to propose a Tax Cut Bill and, at the same time, recommend a social security tax increase which would affect the overwhelming majority of taxpayers.

Mentions Kerr-Mills

● "In his aged care message, the President covered 36 points. . . . He acknowledged that the Kerr-Mills law has a role to play in the health problems of the elderly. . . . But, he argued that it covers "only a small percentage of those aged who need medical care" because Kerr-Mills' MAA had been enacted in 25 states. . . . Actually, 28 states and 3 territories have enacted MAA legislation and 35 states, 3 territories and the District of Columbia have improved or enlarged Old Age Assistance plans under Kerr-Mills. . . . Kennedy called for improving OAA medical care standards to match MAA benefits. . . . He also urged elimination of the 42-day OAA limitation of general hospital care for mental and tubercular patients.

Javits Bill Introduced

● "On February 19, liberal Republican Senators Jacob K. Javits (N.Y.), John Sherman Cooper (Ky.), Clifford P. Case (N.J.), Kenneth B. Keating(N.Y.) and Thomas H. Kuchel (Calif.) introduced a bill (S.849), which is also substantially similar to last year's Anderson-Javits bill. . . . It would be financed by social security taxes and provide an option under which beneficiaries would have a choice of receiving hospital benefits through private carriers, rather than through the federal government.

"At the time of the bill's introduction, Senator Cooper stated: "If the Administration insists upon a bill which does not provide effective choices to the beneficiaries who contribute to the social security system—choices which will enable them to more fully meet their health care needs through private insurance plans—and if, thereby, the Administration denies participation in the private voluntary health care plan, I will not vote for any Administration bill which excludes this free choice by the beneficiaries"."

34 Senators Sign New Fedicare Bill

● Thirty-four Senators, including Tennessee's Estes Kefauver, have signed the new Fedicare Bill. Noticeably conspicuous by his not having signed is Tennessee's junior Senator, Albert Gore. Gore has been outspoken in the past in his support of social security financed medical care for persons over 65.

——0——

Tennessee Physicians To Visit Washington

● A delegation of Tennessee physicians will represent TSMA this week (March 7) at a meeting with members of the Tennessee Congressional delegation in Washington, D.C.

Some 18 physicians will make the trip, which will be high-lighted by a luncheon meeting in the House Speaker's Dining Room. This program was initiated last year and does not have as its intention a "hard sell" with respect to any pending or proposed legislation. It is, rather, an attempt of TSMA to establish a rapport with our elected leaders in the national Congress whereby physicians may discharge their responsibilities as members of the medical profession and as citizens through naming their knowledge and experience available to our Congressmen and Senators, if these gentlemen wish to avail themselves of expert resource persons in the field of health care.

fluid. Histologically speaking, cystic lymphangioma would be more correct. Nevertheless, the term cystic hygroma has been in use for a long time to describe a tumor of the lymphatic system arising usually in the cervical region of infants and is unlikely to be supplanted.

A classic description of cystic hygromas was published by Goetsch[2] in 1938. He has shown that outgrowths of endothelial cells invade between adjacent muscle fibers and other structures in the region of the tumor. These outgrowths acquire a lumen by accumulation of fluid which results in an endothelial lined cyst. These cysts may communicate with the main cystic cavity or lie adjacent to it. The formation of these "side cysts" complicates the problem of complete surgical excision of these lesions.

More than 80% of cystic hygromas will present in the neck, usually in the posterior triangle. The cysts that arise high in the neck may grow upward to infiltrate the muscalature of the floor of the mouth, causing gross distortion. The axillary region is the next most common site for cystic hygromas, and a few are found in the mediastinum, retroperitoneal area and groin. Because about 3% of cervical hygromas may extend into the mediastinum, all such patients should have a chest x-ray prior to treatment. The infant under discussion had a normal chest film.

Cystic hygromas in the neck seldom cause symptoms other than their unsightly appearance, although symptoms of airway or pharyngeal compression may occur, depending on the location and size of the cyst. Infection in these cysts was a much feared complication in the pre-antibiotic era and still may result in a spreading, suppurative cervical lesion that is difficult to treat.

The treatment of choice, as was used in this case, is early operative excision. Many alternate methods of treatment have been tried in the past, including aspiration, incision and drainage, injection of sclerosing agents and radiation. None of these treatments has proved satisfactory. Spontaneous regression has not been well documented and was never observed in the largest series of cases (112 patients) reported by Gross.[3] Operation may now be undertaken in the newborn as readily as in the older child. We prefer, in the case of a premature infant, to wait until attainment of normal birth weight and, of course, in the case of the infant presented today to wait until the erythroblastosis is corrected. Longer delay in operation, however, has no advantages and presents the risk of infection developing in the cyst.

Excision of cervical cystic hygromas is performed through a transverse incision with the infant under endotracheal anesthesia. Provision should be made for the intravenous administration of fluid and blood. The dissection is tedious and demands patience on the surgeon's part to perform a careful dissection. The cyst is very thin walled and tends to tear easily. It should be handled gently with the gloved hand and not grasped with instruments. If the cyst is kept intact, the projections between muscles and other structures, such as carotid artery, jugular vein and brachial plexus, may be more clearly defined and removed. Leaving islands of tissue behind may allow them to act as a focus for recurrence. The recurrence rate may be as high as 10 to 15% if obvious portions of the cyst are not removed. On the other hand, the lesion is not malignant and needless sacrifice of normal structures is condemned.

If, in closing the wound, the platysma muscle is approximated the resulting skin scar will be minimal. There is usually considerable fluid accumulation under the skin flaps. The use of suction catheters to keep the flaps seated against the underlying neck structures has helped solve this problem.

Although cystic hygroma is a relatively infrequent problem, sufficient experience in its management has been documented to indicate that early surgical excision is the treatment of choice and is generally accompanied by a high cure rate and low mortality.

References

1. Odell, Gerard B., Cohen, Sanford, N. and Gordes, Ellen H.: Administration of Albumin in the Management of Hyperbilirubinemia by Exchange Trasfusions, Pediatrics 30:613, 1962.

2. Goetsch, E.: Hygroma Colli Cysticum and Hygroma Axillare, Arch. Surg. 36:394, 1938.

3. Gross, R. E: Surgery of Infancy and Childhood Philadelphia, W. B. Saunders Co., 1953.

CLINICOPATHOLOGIC CONFERENCE

City of Memphis Hospitals*
Cryptococcosis

T. H., a 58 year old white man, was admitted to the City of Memphis Hospitals, Feb. 2, 1962, with the complaint of headaches, mental dullness, lethargy, difficulty in walking, mild anorexia and progressive weight loss. The mental dullness and lethargy were reported to occur periodically, usually lasting several days at a time. Between these intervals he had been able to work as a hospital orderly. The episodes had gradually increased in severity and duration. The headaches were frontal. The mental dullness was further explained by his wife as being periods of memory loss, disorientation, and confusion. In addition, he frequently vomited soon after arising in the mornings. He was not known to have had any temperature elevation.

The *past medical history* indicated that in August, 1958, he had been admitted to a private hospital with a vague history of dizziness, nausea, vomiting, diffuse headaches and fever. The general physical and neurologic examinations at that time were within normal limits except for moderate nuchal rigidity. Spinal fluid examination revealed normal pressures, clear, colorless fluid containing 117 lymphocytes per cu. mm. and a protein of 80 mg.%. Skull x-ray, routine blood and urine examinations, and an EKG. were normal. Electroencephalogram revealed a diffuse slowing of minor degree. He was discharged with a diagnosis of lymphocytic choriomeningitis.

In February of 1959, he was readmitted to the same hospital with complaints of generalized weakness, anorexia and weight loss. He had also noted recurrent epigastric pain. Again the general physical and neurologic examinations and the blood and urine studies were within normal limits. Upper and lower gastrointestinal series were negative. He was discharged as having "functional" gastrointestinal symptoms.

He was admitted to the City of Memphis Hospitals in April, 1961, complaining of back pain. At that time he was found to have generalized osteoporosis and a compression fracture of the body of T-12 vertebra.

Physical examination at the time of readmission to the City of Memphis Hospitals in February, 1962, revealed a thin, but reasonably well-nourished normotensive white man with slow responses and a short attention span. From time to time he made purposeless picking movements. Neurologic examination revealed no localizing abnormalities.

Laboratory Data: Hematocrit was 42%, WBC. count 9,700 with a differential smear showing banded neutrophils 2%, segmented neutrophils 66%, lymphocytes 24%, and monocytes 8%, BUN. was 18 mg.%, CO_2 20 mEq/L and blood sugar 163 mg.%. Serum electrolytes were as follows: chloride 105, potassium 4.6, and sodium 140 mEq/L. Urinalysis was negative.

A lumbar puncture revealed normal dynamics and crystal clear fluid. There were 67 WBC. (mostly lymphocytes) per cu. mm., protein 262 mg., chloride 117 mg. and sugar 18 mg.% Cerebrospinal fluid VDRL. was nonreactive. India ink preparations, fungus cultures, pyogen and acid fast bacterial cultures were all negative. The histoplasmin skin test was positive.

An EEG. showed biparietal and left medial foci of sharp waves during sleep which were consistent with a chronic focal encephalopathy and possibly of a convulsive disorder. A skull film was normal. Chest x-ray examination revealed calcific densities throughout both lung fields, and pleural thickening over the left apex. Pneumoencephalogram revealed generalized dilatation of the ventricular system. Thoracic spine films revealed a compression fractures of T-5 and T-12 with diffuse osteoporosis.

Protein bound iodine was over 40 micrograms %. Serum calcium was 4.3 mEq/L, alkaline phosphatase was 1.6 units and acid phosphatase 0.7 units.

Cytologic studies of the spinal fluid cells revealed atypical epithelial cells whose origin could not be determined. Complement fixation tests for histoplasmosis, blastomycosis and coccidioidomycosis were all negative.

Hospital Course: A tentative diagnosis of histoplasmosis meningitis was made and the patient was started on therapy with amphotericin-B. This was so poorly tolerated that after five attempts it was discontinued.

The patient became progressively more stuporous. His tendon reflexes became hyperactive and the musculature of the extremities became spastic. He was noted to have bizarre, gross tremors at times, on other occasions he was found in opisthotonos. For long periods he could not be roused; he was fed by a nasogastric tube.

A brain biopsy was performed in May, 1962. Microscopic examination revealed fibrosis of the leptomeninges and degeneration of neurons. There was no evidence of acute inflammatory changes or neoplasia.

In June, the patient began to have recurrent episodes of hypotension. These were controlled for a time by Aramine. He expired on July 9, 1962, during one of these episodes.

DR. MATTHEW WOOD: In any patient, whether one whom you have seen and are following, one whose disease ran its course and came to autopsy, whether the disease be typical or confusing, it is often possible to arrive at the diagnosis in a fairly logical manner. Long before all the laboratory

* From the City of Memphis Hospitals and the Departments of Surgery (Neurosurgery) and Pathology, University of Tenn.

tests you see mentioned here were even originally described, a fair idea of the diagnosis of such a case as this could sometimes be made. The chief tool that a clinician uses is, of course, the sequence of all the clinical events. What happened to any particular patient from the time where his initial symptoms started until his demise, whether or not he had remissions; whether or not the disease was gradually or rapidly progressive. These are all very important.

This patient was a middle-aged man who, from the time of the onset of his symptoms in 1958 until he died in 1962, had what might be termed a slowly progressive course. From the time he left the hospital in 1958, he was never well again. Interesting in the entire sequence of this four year history is the fact that he had only an occasional febrile episode. Initially, a clinical diagnosis of lymphocytic choriomeningitis was made on this man.

Throughout this four year period his symptoms were twofold, some in relation to the central nervous system and others to other systems.

The nervous system symptoms were not specific for any one particular area of the brain or spinal cord. This is significant. Outside of the central nervous system, pulmonary symptoms developed and he developed symptomatology referable to the bones.

We have already learned two important things about this man. Whatever he had, he has had for four years, and this immediately will rule out a number of disorders that affect the brain and spinal cord. The second datum which should give you a clue as to what is going on besides the long duration of illness is what happened during his initial, and what happened during his terminal episodes. He had an early diagnosis of lymphocytic choriomeningitis. The symptoms that a patient dies with is sometimes confused by the medications received, but this man died a central nervous system death. The terminal episode was an acute flare-up of the central nervous system illness, as was his initial one. Now the highlights of this man's laboratory findings were that on many occasions he also had negative cultures for tuberculosis, fungi, bacteria, and other common pathogens. The other things of particular interest are his negative arteriograms in the face of generalized ventricular dilation on the pneumoencephalogram. In any event, his air studies and his arteriograms did not show any mass lesions. Getting back to the spinal fluid, I meant to mention a minute ago the fact that, except for one incident mentioned in the protocol, where it mentions pleocytosis with polymorphonuclear leukocytes predominating, the spinal fluid showed a lymphocycosis. Whether or not his adrenal function studies are of any significance I can't tell you.

Now, we have ended up with a patient who had a fatal illness with a long course with central nervous system involvement, but in whom there are also symptoms of something more outside of the central nervous system. We have got to choose a tag to put on this man's illness—some disease which would fit with the generalized nature but surrounding the central nervous system, something that runs a protracted course, and which would produce these spinal fluid findings in the face of all the other negative or slightly abnormal laboratory work. I assume from the fact that this man was given amphoteracim-B that a diagnosis of cryptococcosis was made, in spite of the fact that the spinal fluid cultures and the india ink examinations were negative. I am sure that everything was done to make sure that the "lymphocytes" reported on direct examination of the spinal fluid weren't fungus organisms.

I have had the opportunity of reviewing 17 fatal cases of cryptococcosis and a fourth of the cases could not be diagnosed before autopsy, although cryptococcosis was clinically suspected. The fact that this man had a myriad of laboratory work should not rule out such a particularly deceptive central nervous system disorder. If the laboratory data are positive, fine. If negative, they may or may not be of significance. We could go along with tuberculous meningitis, except that the clinical course is too protracted.

There are a number of yeast or fungal infections of the central nervous system which can give a picture similar to this, although the ones that usually involve the central nervous system do not go this long. I am unable to tie in the vertebral fractures and the old fractures of his ribs to the dis-

ease of the central nervous system. The fungi do not often involve these areas, but do involve the lungs. I do not believe this man has a space occupying lesion. Would it be possible to see his x-ray films?

DR. H. C. GARDNER (Radiology): There are numerous x-ray studies dating back to 1961. His chest films show his heart to be normal in size and contour. There are many calcified nodules throughout the parenchyma and in the bronchopulmonary nodes. This makes me think of either tuberculosis or histoplasmosis. On the film dated April, 1962, he had a diffuse pneumonic infiltrate in the left lower lobe. There are a few old rib fractures.

On the excretory urogram, the kidneys appear normal, at least in 1961. There is osteoporosis and partial collapse of the body of T-12. It looks like this lesion has progressed very little over the past two years. On the pneumoencephalograms there is considerable dilitation of the lateral and third ventricles. We have a good demonstration of the fourth ventricle, which appears somewhat dilated. All ventricles appear in normal position. There does not appear to be evidence of a mass lesion. The aqueduct is well demonstrated. We have some air in the pontine cistern. In none of these films do we see air up over the external surface of the brain. This would go along with the suggestion of adhesions from an inflammatory process. The arteriogram is essentially negative except for some rounding of the anterior cerebral arteries which is probably due to the ventricular dilatation.

If I had to venture one opinion, I would bet on tuberculosis.

Question: What about the PBI in this case?

DR. RUNYAN: The PBI of over 40 micrograms is a manifestation of previous diagnostic studies. Anything over 20 almost certainly must arise from contaminaton by organic dyes.

DR. W. F. McCORMICK: First of all, I think we can dispose of the cause of death in this individual. He died of massive pulmonary embolism, which is not at all surprising in a severely debilitated patient bedridden for over 165 days.

There are several interesting anatomic features worthy of comment. There were adhesions between both lungs and the thoracic walls as you would suspect from the x-rays and from the knowledge that he had granulomatous lesions in the lungs. The heart, as indicated on x-ray, was of normal size, and for all purposes was normal. The lungs were increased in weight, and as I have already stated, there were massive embolism to the pulmonary arteries bilateral. Multiple calcified hilar lymph nodules were present, and these yielded *Histoplasma capsulatum.* There was thrombosis of the left renal vein wth early infarction of the kidney. The adrenals were slightly small in size, weighing 7.0 and 6.5 Gm. for the right and left. They showed extensive caseous necrosis with destruction of approximately one-half of the parenchyma on both sides. *Cryptococcus neoformans* organisms were recovered from the adrenals. It is important to bear in mind that only one-half of the adrenals were involved by this process. With that much remaining adrenal parenchyma marked signs of hypoadrenalism (Addison's disease) were not encountered. We will now confine the rest of our comments to the central nervous system.

The first illustration (Fig. 1) is of the

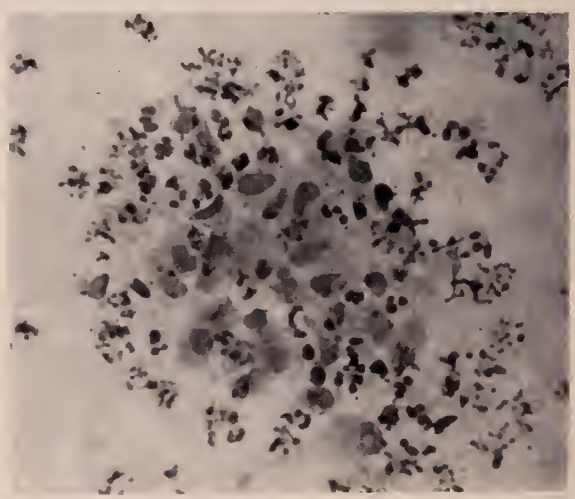


FIG. 1. Membrane filtered spinal fluid specimen demonstrating clumps of large epithelial-like cells.

spinal cytology of this case, which had been quite misleading. We found many cells, both inflammatory and epithelial-like. Like cytology from elsewhere in the body, cytology of the spinal fluid demands a knowledge of what does or does not normally occur, what cells may be found under certain circumstances and what cells can not.

The numerous large clumps of epithelial-like cells, taken individually, do not look particularly bizarre. They resemble most closely epithelial cells of some type. What is most important is that these cells do not belong in the spinal fluid. These cells, the low spinal fluid sugar, and the absence of demonstrable micro-organisms on culture and direct examination, taken together, led to the clinical consideration of carcinomatous meningitis. I think the reasoning is good, but the diagnosis was incorrect.

I must comment briefly on the brain biopsy. Even in retrospect no fungi could be found. The biopsy did, however, note the absence of neoplasia, which was of some importance in leading the clinician away from the diagnosis of neoplastic meningitis.

When the brain was removed at autopsy, it was noted to be slightly decreased in size and showed evidence of a mild, diffused atrophy. The meninges were not significantly thickened grossly. There was no gross evidence of meningitis or of a neoplastic infiltration. The biopsy site was evident.

On microscopic examination of the nervous system we found extensive cellular proliferation within the arachnoid (Fig. 2).

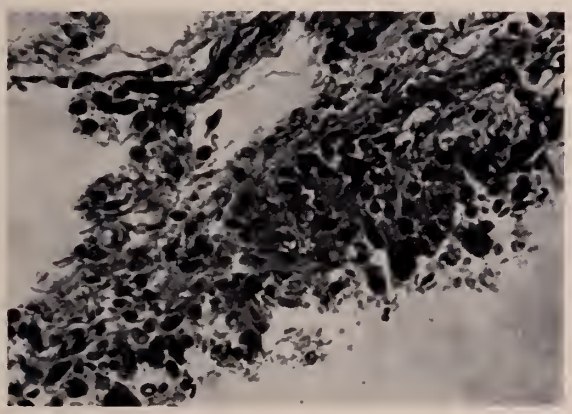


Fig. 2. Arachnoid cell hyperplasia with large, slightly atypical cells.

These are proliferations of the arachnoid cells and this proliferation, undoubtedly stimulated by the chronic inflammatory process, is quite considerable and somewhat unusual, but by no means unknown. It is these cells and from the ependyma, which we will show momentarily, that are our epithelial-like clumps of cells in the spinal fluid. In the section showing the leptomeninges in the interpeduncular fossa there are granuloms with the foreign-body giant cells and a mononuclear and epithelioid cell response, without evidence of caseation (Fig. 3).

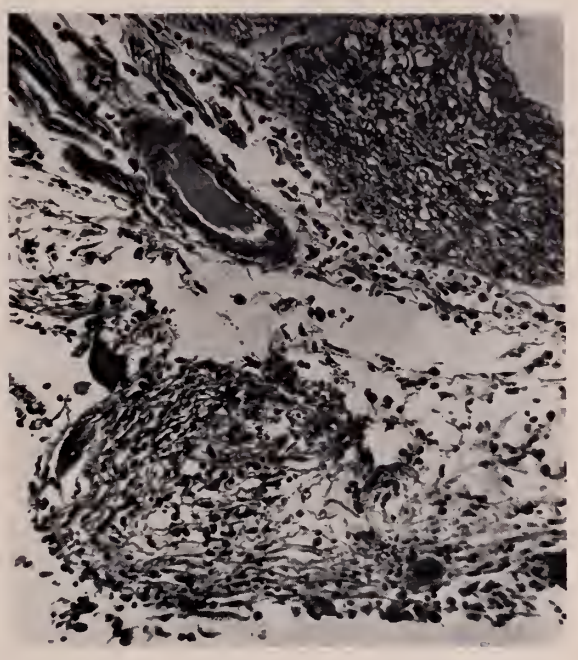


Fig. 3. Granulomatous inflammatory reaction in arachnoid of interpeduncular fossa.

On the sections containing the ependymal surfaces of the lateral ventricles there is marked overgrowth of the ependyma, and instead of being one layer thick reaches a thickness of 5 to 6 cells, some of which are slightly bizarre. The acqueduct of Sylvius has the same type of proliferations. There are some giant cells in the hyper-plastic ependyma of the acqueduct, some of which contain fungi (Fig. 4). These fungi are poorly encapsulated.

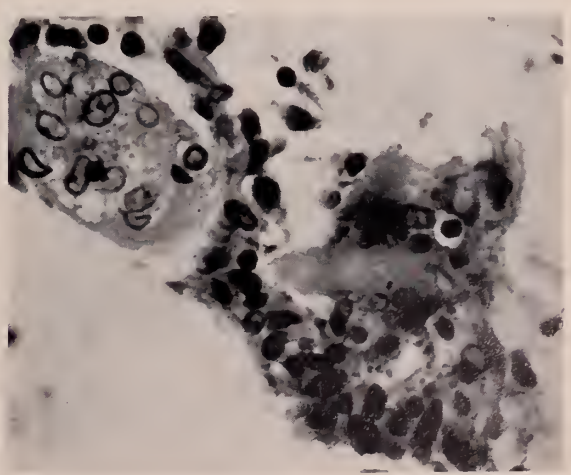


Fig. 4. Giant cells containing fungi from ependyma of acqueduct of Sylvius.

Unfortunately, I think most of the test books tend to illustrate cryptococic infection of the nervous system as producing a very dense, plastic, mucinous exudate distending the subarachnoid and Virchow-Robin spaces, and occasionally forming cysts within the basal ganglia. This type of picture was not seen in this case and, in my experience at least, is the exception rather than the rule. I think, therefore, that textbooks seem to be a little misleading on this subject when they illustrate the disease in an atypical way.

To summarize, I think that this is an interesting and in some ways rather typical case of cryptococcosis. I say typical in that this disease frequently presents a real puzzle in clinical diagnosis and that quite frequently the organisms cannot be recovered from the spinal fluid during the life of the patient.

The adrenal involvement is unusual but well known. This case is somewhat complicated by the fact that there is a double fungus infection, with both cryptococcus and histoplasma being isolated. Only cryptococci were found within the central nervous system and only histoplasma in the lungs. The lung picture was somewhat complicated by the pulmonary emboilization with early infarction, together with hypostatic bronchopneumonia.

The abnormal cells in the spinal fluid have not been elaborated on in the literature, and there is only one disease, to my knowledge, which is characterized by the presence of epithelial cells in the spinal fluid. This is called Mollaret's meningitis. I do not have enough personal experience to comment on whether or not the other granulomatous meningitis (tuberculosis, sarcoid, etc.) can produce such a cellular response. The numerous cases of pyogenic meningitis I have examined have not.

Final Pathologic Diagnosis:

(1) Cryptococcosis of leptomeninges and adrenals.

(2) Massive pulmonary emboli.

DR. ERICKSON: One of the things I would like to comment on is the gross picture Dr. McCormick mentioned. He stated that in his material the formation of the thick gelatinous exudate is unusual. Is this an exception rather than an actual picture? I would like to point out that in my previous experience from other parts of the country a very significant number of cases of cryptococcosis were of the "text book" type with greatly distended arachnoid. Dr. McCormick has made an extensive review of the cases here and has pointed out that some of the cases were not treated but still did not show obviously gelatinous thickenings of the meninges, so that treatment cannot account for the difference in gross appearance.

DR. McCORMICK: That is correct. In fact, this case was not treated, as the amphoteracin-B could not be tolerated by the patient, and was discontinued before anything like a therapeutic course was pursued.

References

1. McCormick, W. F., and Coleman, S. A.: A Membrane Filter Technique for Cytology of the Spinal Fluid, Am. J. Clin. Path. 38:191, 1962.

2. Levinsky, W. J.: Hypoglycorrhachia (Low Cerebrospinal-Fluid Sugar) in Diffuse Meningeal Neoplasm, N. England J. Med. 268:198.

3. Littman, M. L. and Zimmerman, L. E.: Cryptococcosis, New York, Greene & Stratton, 1956.

4. Bruyn, G. W., Straathof, L. J. A., and Raymakers, G. M. J.: Mollaret's Meningitis, Neurology, 12:742, 1962.

President's Page



WILLIAM J. SHERIDAN, M.D.

No doubt you are fully aware that the annual meeting of your Association will be held in Knoxville, April 7-8-9-10. To make this meeting a success it is encumbent upon you to attend, not as a duty, but for the educational value of a well prepared program and for the opportunity of visiting with former classmates and friends. There will be scientific exhibits that will be well worth your while to visit.

Your President is aware of the demands on a doctor's time. He too is aware that in past years there has been a great increase in the number of types of medical meetings. Required attendance at hospital staff and sectional meetings, local specialty meetings, are all worth while.

When the individual physician no longer supports his state and national associations, his interest will certainly be diverted in other directions. It should be emphasized that any factor tending to weaken the associations that represent him will be reflected in the lessening of his protection from those outside forces that continually strive to gain control of our profession through socialization and centralized governmental regulation. The individual, unaided, is powerless in resisting such a frontal attack; his only hope of survival is through the combined efforts of him and his fellow practitioners through the medium of active participation in the affairs of his county, state and national associations. No other organization in medicine can compete with our state and national associations in influencing public opinion and legislation at all levels. To this your serious consideration is respectfully invited.

Your Scientific Committee has given much study to devise a program that would be attractive to the membership. It is evident that a program that appeals to one group may not arouse interest in another. In the past various specialty groups have arranged, and their members have attended, their own programs rather than participating in the general meeting. It is being studied wherein specialty groups arrange and present programs of general interest and these, for the most part, would supplant the previous type of general meetings. The Scientific Committee will welcome your constructive suggestions toward arranging programs that will be interesting and educational.

Remember to visit the scientific exhibits. The exhibitors put forth much effort in arranging their displays and they appreciate your interest as you stop to visit them and see their products.

Your President looks forward to seeing you in Knoxville on April 7, 8, 9, 10.

William J. Sheridan, M. D.

President

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor and Secretary, 8210 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor and Secretary
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK

FRED B. BALLARD, JR., M.D.
BOYER M. BRADY, JR., M.D.
JOHN H. BURKHART, M.D.
W. DAVID DUNAVENT, M.D.
ROBERT P. McBURNEY, M.D.
C. HAROLD STEFFEE, M.D.
HENRY B. TURNER, M.D.
BRUCE E. WALLS, M.D.
WENDELL W. WILSON, M.D.
R. H. KAMPMEIER, M.D.

MARCH, 1963

EDITORIAL

THE NEPHROTIC SYNDROME

Recent advances in the fields of immunochemistry and light and electron microscopy have helped in the elucidation of the nephritides producing the nephrotic syndrome.[1] At the same time, endocrinologic research has made adrenal steroid hormones available as new therapeutic agents.

From experimental and clinical evidence it is possible to divide the primary nephritides which produce the nephrotic syndrome into two major types. They differ pathologically and clinically and the use of the term "nephrotic syndrome" to designate both entities is erroneous. Response to therapy may be more effective in one form than in the other, so it is important to make a definite diagnosis. Also, therapy must be evaluated as regards its influence on the underlying disease process. Since adults with the nephrotic syndrome may have a lengthy course with frequent complications, long term results are difficult to appraise.

Little progress was made in classifying renal disease following the studies of Richard Bright in 1820, until the classical work of Ellis in 1942.[2] Ellis described two types of glomerulonephritis, Type I, or proliferative glomerulonephritis, and Type II, or membranous glomerulonephritis.

Proliferative glomerulonephritis is characterized by an abrupt onset following an acute infection, usually a sore throat, with malaise, headache, fever and abdominal and flank pain. Edema is present in 90% of cases and hypertension, nitrogen retention and hematuria are common. It is more often present in persons under the age of 20 years and complete recovery is the rule. Only 10% progress to the chronic form with albuminuria, hypertension and eventual uremic death.

Anatomically the lesion varies from simple hypercellularity of glomeruli and polymorphonuclear infiltration to arteriolar and glomerular capillary tuft necrosis.

Membranous glomerulonephritis usually has no antecedent infection and is characterized by an insidious onset and absence of general symptoms. Edema is persistent but hypertension is inconstant, and nitrogen retention and hematuria are absent. The disease is equally distributed in the second to fifth decades of life and recovery occurs in less than 5% of cases. The most common complications are pleurisy, peritonitis and bronchopneumonia.

Anatomically there is thickening of the basement membranes of the glomerular capillaries and intercapillary stroma. Necrotic vascular lesions are absent in the early stages, unlike the picture seen in proliferative glomerulonephritis. Later there is progressive hyalinization of glomeruli with renal destruction.

There is considerable overlap in some patients and electron microscopy is sometimes helpful in differentiating the two types of glomerulonephritis.

The experimental studies on nephritis have been concerned with immunologic mechanisms and the production of experimental lesions. The first suggestion that

(Continued on page 109)

PROGRAM

- Outstanding Guest Speakers
- General Scientific Meeting
- 17 Specialty Society Meetings
- Fun And Entertainment
- Medical Motion Pictures
- Technical Exhibits

TENNESSEE STATE MEDICAL ASSOCIATION

1963 Annual Meeting

KNOXVILLE *April 7 to 10*

- Presidents' Banquet

  Monday, April 8—C'est Bon Club

- House of Delegates

  Opening Session Sunday, April 7, 1:00 p.m.
  2nd Session Tuesday, April 9, 9:00 a.m.

- Registration Daily

  8:00 a.m. to 5:00 p.m. . . . No Registration Fee

Special Section

SCIENTIFIC PROGRAM OF THE 128TH ANNUAL MEETING OF THE TENNESSEE STATE MEDICAL ASSOCIATION

General Information

► The program contains detailed information on the 1963 Annual Meeting of the Tennessee State Medical Association, conducted in Knoxville, Tennessee, April 7-10, 1963.

► *Registration*

The registration desk will be located on the First Floor of the Andrew Johnson Hotel. All members, visiting speakers, interns, residents, and guests are urged to register. Admission to all meetings and sessions and to the exhibits is by a badge secured at the registration desk. *THERE IS NO REGISTRATION FEE.*

Programs for all activities during the annual meeting are available at the registration desk. Those eligible to register are: Members of the Tennessee State Medical Association; physicians from other states who are members of their respective State Medical Society; residents, interns, medical students and guests.

Miss Willard Batey
Chief Registrar

► *Registration Hours* (All times are Eastern Standard Time)

Sunday, April 7	9:30 A.M. (Special registration for members of the House of Delegates from 9:30 A.M. to 1:00 P.M.) Advance registration for exhibitors and early arrivals will be conducted from 2:00 P.M. to 5:00 P.M.
Monday, April 8	8:00 A.M. to 5:00 P.M.
Tuesday, April 9	8:00 A.M. to 5:00 P.M.
Wednesday, April 10	8:00 A.M. to 12:00 Noon

► *Annual Meeting Headquarters*

Headquarters are located in the Andrew Johnson Hotel, Knoxville, where many activities are scheduled. A number of the specialty societies will conduct their meetings concurrently with TSMA in the Andrew Johnson. Specialty societies meeting outside of the Andrew Johnson are listed elsewhere in this program under the days that the societies are to meet.

The sessions of the Woman's Auxiliary will be conducted in the Farragut Hotel.

► *TSMA Headquarters Office*

Rooms 313-314 in the Andrew Johnson Hotel will be the Headquarters Office of TSMA during the meeting. A member of the staff will be available to assist you at all times. Members of the House of Delegates, Officers, and Reference Committee Chairmen can secure secretarial help when needed. Your headquarters staff is available to assist you in your needs.

J. E. Ballentine, *Executive Director*
Jack Drake, *Public Service Director*
Hadley Williams, *Executive Assistant*
Miss Willard Batey, *Records and Bookkeeping*
Mrs. Doris Darrow, *Secretary*
Mrs. Jean Ragsdale, *Secretary*

► *President's Banquet and Social Hour*

The President's Banquet will be preceded by a Social Hour sponsored by the Tennessee State Medical Association, beginning at 6:00 P.M. on Monday Evening, April 8th, in the C'est Bon Club located on Alcoa Highway, Knoxville.

The Banquet will follow at 7:00 P.M. in the C'est Bon Club. Tickets are available at the registration desk. A limited number can be accommodated. *GET YOUR TICKETS EARLY.*

► *Message Center—Emergency Telephones Knoxville 523-3123 and 523-3124*

Telephone service will be installed for your convenience in the Message Center on the First Floor (Andrew Johnson Room) Andrew Johnson Hotel. Incoming emergency calls for those attending the meeting will be taken. You will be notified of your call by a "flash screen" in the auditorium where the general scientific meetings are held, and you will be paged in an effort to locate you. Notify your Secretary or patients to contact you during the annual meeting at the TSMA Emergency Numbers:

KNOXVILLE 523-3123 and 523-3124

► *Banquet Tickets*

Tickets to the Social Hour and President's Banquet will be available at the registration desk. Banquet space is limited, *get your tickets early.* Tickets to specialty society banquets and luncheons, as well as the Woman's Auxiliary affairs, can be obtained from their respective registration desk. *PURCHASE YOUR TICKETS AT THE TIME OF REGISTRATION.* The number that can be accommodated is limited.

► *Woman's Auxiliary*

The Woman's Auxiliary to TSMA will conduct all sessions of its Annual Meeting in the Farragut Hotel. The registration desk for the Auxiliary will be located in the Farragut Hotel and all committee meetings, board meetings and general sessions will be conducted at the Farragut.

► *House of Delegates*

The first meeting of the House will be held on

Sunday, April 7th, beginning at 1:00 P.M. in the Colonial Room and Ballroom C of the Andrew Johnson Hotel. The second session will be conducted on Tuesday, April 9th, beginning at 9:00 A.M. in the same rooms as above, Andrew Johnson Hotel.

► *General Scientific Meeting*

The General Scientific Meetings of TSMA will be conducted from 9:00 A.M. until 12:00 Noon on the mornings of April 8-9-10 in Johnson Hall of the Andrew Johnson Hotel.

► *Specialty Societies*

Seventeen specialty societies have arranged to conduct their meetings concurrently with the Tennessee State Medical Association. The scientific and business sessions of the specialty societies will be conducted on April 6-7-8-9-10. *See details in the program listed under each of these days* and under *"Announcements."*

► *Technical Exhibitors*

The technical exhibitors will be located in the Lobby and on the First Floor of the Andrew Johnson Hotel and may be visited each day of the Annual Meeting, beginning on Monday, April 8th, from 9:00 A.M. until 5:00 P.M.; and ending on Wednesday, April 10th at 12:00 Noon. The exhibitors are an important part of the 128th Annual Meeting and each physician will be well repaid by spending time inspecting them. The exhibits will display many educational features of medical supply and scientific world.



ANNOUNCEMENTS—

SPECIAL MEETINGS AND EVENTS

President's Banquet

C'est Bon Club (Alcoa Highway)
Monday, April 8—7:00 P.M.
Social Hour—6:00 P.M.
C'est Bon Club

Sponsored by TSMA

William J. Sheridan, M.D., President, Presiding
Speaker: Durwood G. Hall, M.D., Member of Congress from Missouri
Introduction of President-Elect—
Bland W. Cannon, M.D.
Special Awards:
Presenting Tennessee's Outstanding Physician of the Year, by J. Malcolm Aste, M.D., Speaker of the House of Delegates
Presenting Health Project Contest Winner by R. M. Finks, M.D., Chairman, Board of Trustees and Treasurer

Woman's Auxiliary to the Tennessee State Medical Association

April 7-8-9, 1963
Farragut Hotel
Hospitality Room—Frontier Room

Registration

Sunday, April 7—3:00 P.M.-5:00 P.M.
Monday, April 8—8:00 A.M.-4:00 P.M.
Tuesday, April 9—8:30 A.M.-11:00 A.M.

Sunday, April 7, 1963

3:00 P.M.-5:00 P.M.

Registration at Farragut Hotel
Entries accepted for Arts & Crafts—Frontier Room
Special Committee Meetings (Awards, Revisions, Finance), 2:00 P.M.-4:00 P.M., President's Suite, Room 540, Farragut Hotel.

Monday, April 8, 1963

8:00 A.M.-4:00 P.M.

Registration

8:00 A.M.-9:45 A.M.

Pre-Convention Board Meeting—Oak Room (Breakfast)

9:00 A.M.-12:00 Noon

Entries accepted for Arts & Crafts—Frontier Room

9:00 A.M.-4:30 P.M.

Hospitality Room Open—Frontier Room

10:00 A.M.-12:00 Noon

General Convention Session—Colonial Room

3:00

Tea—Dulin Art Gallery

7:00 P.M.

President's Banquet—Tennessee State Medical Association, C'est Bon Club

Tuesday, April 9, 1963

8:30 A.M.-11:00 A.M.

Registration

8:30 A.M.-11:00 A.M.

General Convention Session—Colonial Room

9:00 A.M.-4:30 P.M.

Arts & Crafts, Hospitality Room Open—Frontier Room

12:15 P.M.

Honors and Awards Luncheon—Holston Hills Country Club (Transportation furnished)

3:30 P.M.

Post-Convention Board Meeting—Oak Room

4:00 P.M.-5:00 P.M.

Pick up entries from Arts & Crafts—Frontier Room

Arts and Crafts Exhibit

The Arts and Crafts Exhibit of the Woman's Auxiliary will be conducted in the Farragut Hotel —Frontier Room. Doctors and their wives are urged to participate in the exhibit.

Board of Trustees Meeting

The TSMA Board of Trustees will meet in the Rose Room of the Andrew Johnson Hotel at 9:00 A.M. on Wednesday, April 10.

Scientific Exhibits

Any scientific exhibits presented will be displayed in the Andrew Johnson Hotel.

Technical Exhibits

The exhibits are located in the Lobby and on the first floor of the Andrew Johnson. They are open daily at 9:00 A.M. The exhibits display many educational features of the medical supply world of interest to doctors.

Public Health Council

The Public Health Council will meet in the Tennessee Room of the Farragut Hotel at 10:00 A.M. on Monday, April 8.

Tennessee State Orthopaedic Society

The meeting of the Tennessee State Orthopaedic Society will be conducted in the University of Tennessee Memorial Research Hospital, located on Alcoa Highway, on **Saturday, April 6 and Sunday, April 7.**

The sessions will begin with registration and scientific papers, and a business meeting will be conducted on Sunday, April 7.

The times that the papers will be presented, will be announced.

Please see the listing for the Saturday and Sunday meeting on Pages 10, 11 of this Program for all scientific papers and the Business Meeting.

Tennessee Society of Plastic Surgeons

The Tennessee Society of Plastic Surgeons will conduct a business meeting on Sunday, April 7, 1963 at 2:00 P.M.

The meeting will be conducted at Room 708, Blount Professional Building, Knoxville.

Tennessee State Obstetrical and Gynecological Society

The Society has planned an interesting meeting, both from the standpoint of recreation and scientific education.

Saturday afternoon, April 6, golf and recreation will be the theme. Contact Dr. Harry Jenkins or Dr. Martin Davis, Knoxville. On Saturday evening beginning at 7:00 P.M., there will be a Social Hour and Banquet at the Deane Hills Country Club in Knoxville.

On Sunday, April 7, the Golf Tournament at Cherokee Country Club will be conducted. Contact Dr. Harry Jenkins or Dr. Martin Davis. Sunday evening at 7:00 P.M. there will be a Social Hour and Buffet Dinner at the Cherokee Country Club. Following the Buffet Dinner, a business meeting will be conducted.

The scientific program will be presented on Monday, April 8. See proceedings under **"MONDAY"** for scientific program. See Page 104.

Technical Exhibits

Technical exhibits for the 1963 Annual Meeting will be displayed on the LOBBY and FIRST FLOORS of the Andrew Johnson Hotel. The newest developments in pharmaceuticals, equipment and services will be on display, with full information available through trained and experienced representatives.

Exhibits will be open daily from 9:00 A.M. until 5:00 P.M. All physicians will find their time well spent in visiting exhibits and keeping abreast of what is new and useful. *YOUR ATTENDANCE IS URGED,* for your benefit as well as for an expression of cooperation with our exhibitors.

ALOE—Division Brunswick Corporation Knoxville, Tennessee	First Floor Booth 25
THE BIRTCHER CORPORATION Los Angeles, California	Main Lobby Booth 3
BRAYTEN PHARMACEUTICAL COMPANY Chattanooga, Tennessee	First Floor Booth 47
CIBA PHARMACEUTICAL COMPANY Summit, New Jersey	First Floor Booth 21
THE COCA-COLA COMPANY Atlanta, Georgia	First Floor Booth 14
DAIRY COUNCILS OF TENNESSEE Appalachian Area, Chattanooga, Knoxville, Memphis, Nashville	First Floor Booth 17
THOMAS A. EDISON INDUSTRIES Nashville, Tennessee	Main Lobby Booth 6-A
ELI LILLY AND COMPANY Indianapolis, Indiana	First Floor Both 8
ROBERT C. FRAIM & ASSOCIATES Knoxville, Tennessee	Main Lobby Booth 6
GEIGY PHARMACEUTICALS Yonkers, New York	First Floor Booth 43
L. C. HAMMOCK COMPANY, INC. Knoxville, Tennessee	Main Lobby Booth 5
INTERNATIONAL LATEX CORPORATION New York, New York	First Floor Booth 26
THE LANIER COMPANY Atlanta, Georgia	Main Lobby Booth 2
LEDERLE LABORATORIES (Division American Cyanamid Company) Pearl River, New York	First Floor Booth 12
J. A. MAJORS COMPANY Dallas, Texas	Main Lobby Booth 1
MEAD JOHNSON LAORATORIES Evansville, Indiana	First Floor Booth 9
MEDCO PRODUCTS CO., INC. Tulsa, Oklahoma	First Floor Booth 42
MERCK SHARP & DOHME (Division of Merck & Co., Inc.) Atlanta, Georgia	First Floor Booth 40
MUTUAL BENEFIT LIFE INSURANCE CO. (Dunn-Lemly-Sizer) Nashville, Tennessee	First Floor Booth 30
NATIONAL DRUG COMPANY Philadelphia, Pennsylvania	First Floor Booth 33
ORGANON, INC. West Orange, New Jersey	First Floor Booth 28
PARKE, DAVIS & COMPANY Detroit, Michigan	First Floor Booth 13
PFIZER LABORATORIES New York, New York	First Floor Booth 10
PLOUGH LABORATORIES, INC. Memphis, Tennessee	First Floor Booth 16
WM. P. POYTHRESS & CO., INC. Richmond, Virginia	First Floor Booth 15

A. H. ROBBINS COMPANY, INC. Richmond, Virginia	First Floor Booth 22
ROCHE LABORATORIES Nutley, New Jersey	Main Lobby Booth 4
SANDOZ PHARMACEUTICALS Hanover, New Jersey	First Floor Booth 18
SCHERING CORPORATION Union, New Jersey	First Floor Booth 19
JULIUS SCHMID, INC. New York, New York	First Floor Booth 23
G. D. SEARLE & CO. Chicago, Illinois	First Floor Booth 11
SHERMAN LABORATORIES Detroit, Michigan	First Floor Booth 20
SMITH, REED THOMPSON & ELLIS CO. Nashville, Tennessee	First Floor Booth 41
SOUTHERN DRUG & MANUFACTURING CO. Knoxville, Tennessee	First Floor Booth 44
SOUTHERN OXYGEN COMPANY (Division of Air Products & Chemicals, Inc.) Kingsport, Tennessee	First Floor Booth 32
E. R. SQUIBB & SONS New York, New York	First Floor Booth 45
TENNESSEE COLLECTORS ASSOCIATION, INC.	First Floor Booth 27
TENNESSEE GUILD OF DISPENSING OPTICIANS	First Floor Booth 29
TSMA PROFESSIONAL LIABILITY INS. (Malpractice)	First Floor Booth 46
THE UPJOHN COMPANY Kalamazoo, Michigan	First Floor Booth 7
WARNER-CHILCOTT LABORATORIES Morris Plains, New Jersey	First Floor Booth 24
WHITE SURGICAL SUPPLY COMPANY Knoxville, Tennessee	First Floor Booth 31

VISIT THE EXHIBITORS

The general scientific meetings will be recessed in mid-mornings for thirty minutes each day to give doctors an opportunity to visit the exhibitors.

J. E. BALLENTINE,
Executive Director

☆

PROGRAM
Sunday, April 7, 1963

1:00 P.M. (E.S.T.)

House of Delegates, Colonial Room and Ballroom C

Andrew Johnson Hotel—Knoxville

SPECIALTY SOCIETIES

TENNESSEE STATE SOCIETY OF ANESTHESIOLOGISTS

Sunday, April 7, 1963
Andrew Johnson Hotel
Carousel Room

10:00 A.M.
Business Meeting

12:00 Noon
Luncheon—Parlor A

1:00 P.M.
SCIENTIFIC PROGRAM

"Hepatic Function Following Anesthesia"
By: DAVID H. LITTLE, M.D., Department of Anesthesiology, Hartford Hospital, Hartford, Conn.

1:30 P.M.
"Electronarcosis"
By: WILLIAM H. L. DORNETTE, M.D., Memphis

2:00 P.M.
"Practical Uses of Electrical Devices in Surgery and The Recovery Room"
By: WILLIAM H. L. DORNETTE, M.D., Memphis

☆

WOMAN'S AUXILIARY TO THE TENNESSEE STATE MEDICAL ASSOCIATION

April 7-9, 1963
CONVENTION HEADQUARTERS
FARRAGUT HOTEL

* * * * *

35th Annual Convention

* * * * *

Sunday, April 7
3:00-5:00 P.M. Registration
FARRAGUT HOTEL

2:00-5:00 P.M.
Entries accepted for Arts & Crafts in Frontier Room

2:00 P.M.-4:00 P.M.
Special Committee Meetings (Awards, Revisions, Finance)—President's Suite, Room 540, Farragut Hotel

Hostess Auxiliary
The Woman's Auxiliary of the Knoxville Academy of Medicine

☆

TENNESSEE SOCIETY OF PLASTIC SURGEONS

Sunday, April 7, 1963
2:00 P.M.
Business Meeting to be conducted in office 708, Blount Professional Building, Knoxville, Tennessee.

☆

TENNESSEE STATE ORTHOPAEDIC SOCIETY

Saturday, April 6, 1963
U.T. Memorial Research Hospital
Alcoa Highway, Knoxville

PROGRAM

Saturday, April 6

"Hamstring Surgery in Cerebral Palsy"
By: William Hillman, M.D., Nashville

"Split Anterior Tibial Transfers"
By: John R. Jones, M.D.

"Osteochondrosis Deformans Tibiae"
By: William Davis, M.D.

"Spondylolisthesis—Report of Four Cases of Progressive Slipping"
By: Joe E. Tittle, M.D., Oak Ridge

"Rheumatoid Arthritis—Current Concepts of Management"
By: James P. Worden, M.D., Knoxville

"Fibrous Cortical Defects and Related Problems in Children"
By: J. Marsh Frere, M.D.

"Clinical Followup of the Bosworth Procedure for Reconstruction of the Medial Collateral Ligament of the Knee"
By: Joe C. Crumley, M.D., Knoxville

"Case Presentation of Osteoblastoma of the Tibia"
By: Leon J. Willien, M.D., Knoxville

"Review of Surgically Treated Scoliosis at East Tennessee Children's Hospital—An End Result Study"
By: Peter Neblett, M.D.

"The Versatile Cross-Leg Flap"
By: Anthony P. Jerome, M.D., Memphis

Paul R. Harrington, M.D., Houston, Texas, will be the Guest Speaker at the Orthopaedic Meeting, presenting a paper on:

"Spine Instrumentation in Scoliosis"
(Times of all papers will be announced.)

Sunday, April 7

Business Meeting
(U.T. Memorial Research Hospital)



Monday, April 8, 1963

SCIENTIFIC MEETINGS

General Scientific Program

Johnson Hall **Andrew Johnson Hotel**

Oscar M. McCallum, M.D., Henderson, Vice President, TSMA, presiding

9:00 A.M.

Movie—"A Matter of Seconds"

9:30 A.M.

"Uncommon Airs"

By: David M. Little, M.D., Department of Anesthesiology, Hartford Hospital, Hartford, Conn.

10:00 A.M.

Visit Exhibits

10:30 A.M.

"Some Do's and Don'ts of Allergic Management"

By: Claude A. Frazier, M.D., Asheville, N. C.

11:00 A.M.

Symposium on "Antihypertensive Drugs"
"Pharmacology of the Drugs"

By: Robert A. Woodbury, M.D., Memphis

"Indications for Initial Treatment and Maintenance"

By: Richard A. Obenour, M.D., Knoxville

"Effect of Stress of Surgery on Antihypertensive Treatment"

By: Douglas H. Riddell, M.D., Nashville

"Problems in Anesthetic Management in the Presence of Antihypertensive Treatment"

By: J. Sumpter Anderson, Jr., M.D., Nashville

SPECIALTY SOCIETIES

TENNESSEE ACADEMY OF GENERAL PRACTICE

MONDAY, APRIL 8, 1963
SCIENTIFIC PROGRAM
(Category I Credit Approved)
TAGP Members

Johnson Hall **Andrew Johnson Hotel**

1:00-2:30 P.M.

"Responsibility in Use of Newer and Experimental Drugs—Medical Point of View and Governmental Point of View"

By: Irwin C. Winter, Ph.D., M.D., Vice President of Medical Affairs, G. D. Searle & Company, Chicago, Illinois
Mr. Eugene H. Holeman, Director of the Food and Drug Division, Tennessee State Department of Agriculture, Nashville

2:30-3:00 P.M.

"Allergy: Methods for the General Practitioner to Determine the Cause of an Allergy"

By: Claude A. Frazier, M.D., Asheville, N.C.
Tolbert C. Crowell, M.D., Chattanooga

TENNESSEE RADIOLOGICAL SOCIETY

MONDAY, APRIL 8, 1963
Colonial Room—Andrew Johnson Hotel

Social Hour—12:00 Noon

Luncheon—12:30 P.M. Colonial Room, Andrew Johnson Hotel

1:30 P.M.

SCIENTIFIC PRESENTATION

"Clinical Applications of Cine Radiography"

By: Eugene Klatte, M.D., Chairman, Department of Radiology, Vanderbilt University Hospital & School of Medicine, Nashville

2:30 P.M.

Film Reading Session—Interesting Films shown by Radiologists of Tennessee.

TENNESSEE ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

MONDAY, APRIL 8, 1963
Holiday Inn (Downtown)

12:15 P.M.

Luncheon with question and answer round table discussion.

SCIENTIFIC PROGRAM

2:00 P.M.

Meeting called to order—
WILLIAM KENNON, M.D., President, Presiding

2:30 P.M.

"Diagnosis and Treatment of Sinusitis in Children"
By: SAM SANDERS, M.D., Memphis

2:50 P.M.

"An Inexpensive Portable Surgical Microscope"
By: JOHN W. CAMPBELL, M.D., Knoxville

3:10 P.M.

"Teflon Piston Operation for Otosclerosis"
By: JOHN SHEA, M.D., Memphis

3:30 P.M.
(Recess)

3:40 P.M.

"Pituitary Stalk Section and Management of Diabetic Retinopathy"
By: RICHARD L. DESAUSSURE, M.D., Memphis

4:00 P.M.

"Systemic Emergencies and the Ophthalmologist"
By: REESE W. PATTERSON, JR., M.D., Knoxville

4:20 P.M.

"Carotid Cavernous Sinus Fistula with Ocular Involvement—A Case Report"
By: ROLAND MYERS, M.D., and JAMES C. H. SIMMONS, M.D., Memphis

4:40 P.M.

"The Clinical Use of Premarin in Hyphemas"
By: PHILLIP J. DEER, JR., M.D., Memphis

☆

TENNESSEE THORACIC SOCIETY

MONDAY, APRIL 8, 1963
Ballroom C—Andrew Johnson Hotel
Joint Annual Meeting with the
TENNESSEE CHAPTER—AMERICAN COLLEGE OF CHEST PHYSICIANS
PROGRAM

12:15 P.M.-1:00 P.M.
Luncheon for Members and Guests

1:15 P.M.

SCIENTIFIC PROGRAM
ROBERT W. NEWMAN, M.D., Presiding

"Surgical Resection for Tuberculosis: Indications and Results"—A Ten Year Survey—1951-1961
By: ROBERT W. NEWMAN, M.D., Knoxville
H. C. CHAI, M.D., Knoxville

1:45 P.M.

"Pathologic Changes in Pulmonary Tuberculosis Following Prolonged Chemotherapy"
By
Guest Speaker: OSCAR AUERBACH, M.D., East Orange, New Jersey

2:45 P.M.
Coffee Break

3:00 P.M.

"Pulmonary Vascular Changes in Chronic Lung Disease"
By: FRANCIS H. COLE, M.D., Memphis
(Discussion)

3:30 P.M.

"Histoplasmosis: Evaluation of Diagnostic Methods"
By: W. W. HUBBARD, M.D., Nashville
(Discussion)

4:00 P.M.
Business Meeting

4:30 P.M.
Adjournment

☆

TENNESSEE SOCIETY OF PATHOLOGISTS

MONDAY, APRIL 8, 1963

12:00 Noon

Luncheon **Parlor A**
Andrew Johnson Hotel

SCIENTIFIC PROGRAM

1:00 P.M.

The scientific meeting will consist of a microscopic slide seminar:

"Obstetric-Gynecologic Pathology with Emphasis on Endometrial Lesions"
By: HERBERT B. TAYLOR, M.D., Chief of Ob-Gyn. Pathology, Armed Forces Institute of Pathology, Washington, D.C.

Business Meeting

☆

TENNESSEE STATE PEDIATRIC SOCIETY

MONDAY, APRIL 8, 1963
Knoxville Academy of Medicine Auditorium
422 West Cumberland Ave., Knoxville

1:30 P.M.

"Management of the Epileptic Child"
By: JAMES G. HUGHES, M.D., Professor of Pediatrics, University of Tennessee College of Medicine, Memphis

2:30 P.M.

"Recent Advances in the Diagnosis of Heart Disease in Children"
By: F. A. PUYAU, M.D., Vanderbilt University School of Medicine, Nashville

3:45 P.M.

Business Meeting

☆

TENNESSEE INDUSTRIAL MEDICAL ASSOCIATION

Monday, April 8, 1963

PROGRAM

9:00 A.M.

Chartered bus to pick up members at the Andrew Johnson Hotel for trip to Oak Ridge National Laboratory.

10:00 A.M.

Guided tour of Oak Ridge National Laboratory

12:00 Noon

Return to Knoxville

1:00 P.M.

Luncheon for members of the Tennessee Industrial Medical Association and TSMA members at the S & W Cafeteria, Gay Street, Knoxville
S & W Cafeteria

2:00 P.M.

SCIENTIFIC PROGRAM

Panel Discussion: "How to Get the Industrial Worker Back on the Job"

Moderator: PAUL SPRAY, M.D., Orthopedic Surgery, Oak Ridge

ROBERT PATTERSON, M.D., Orthopedic Surgery, Knoxville

WALTER C. SHEA, JR., M.D., General Practice, Lenoir City

H. DEWEY PETERS, M.D., General Surgery, Knoxville

FREEMAN RAWSON, M.D., Cardiology, Knoxville

P. J. FLIPPEN, M.D., Industrial Medicine, Arnold Air Force Station

MR. GEORGE DYKES, Assistant Superintendent of Industrial Relations, Union Carbide Nuclear Co., Oak Ridge

MR. J. WALKER HALE, Regional Supervisor, Aetna Casualty and Surety Co., Oak Ridge

4:00 P.M.

Business Meeting for members of the Tennessee Industrial Medical Association

(Panel members will present five minute opening statements. An inter-panel discussion and questions from the audience will follow.)

☆

TENNESSEE OBSTETRICAL AND GYNECOLOGICAL SOCIETY

MONDAY, APRIL 8, 1963

Auditorium—U.T. Memorial Research Hospital Alcoa Highway, Knoxville, Tennessee

SCIENTIFIC PROGRAM

9:00 A.M.

The scientific program will be presented in the auditorium of the University of Tennessee Memorial Research Hospital, Alcoa Highway, Knoxville.

Complete details of the scientific papers to be presented, and the speakers will be announced.

11:00 A.M.

(Guest Speaker)

"Functional Uterine Bleeding"

By: E. C. HAMBLEN, M.D., Professor of Endocrinology, Duke University School of Medicine, Durham, North Carolina

12:00 Noon

Buffet Luncheon

City Club—601 Walnut Street—Knoxville

See details under "Announcements" for all events scheduled during the meeting of the Society.

REGISTRATION—

SUNDAY AND MONDAY, APRIL 7 and 8

WOMAN'S AUXILIARY TO THE TENNESSEE STATE MEDICAL ASSOCIATION

MONDAY, APRIL 8, 1963

Farragut Hotel

PROGRAM

8:00 A.M.-4:00 P.M.

Registration—Farragut Hotel

8:00 A.M.-9:45 A.M.

Pre-Convention Board Breakfast—Oak Room Farragut Hotel

9:00 A.M.-4:30 P.M.

Hospitality—Frontier Room Farragut Hotel

10:00 A.M.-12:00 Noon

General Convention Session—Colonial Room Farragut Hotel

3:00 P.M.-5:00 P.M.

Tea—Dulin Art Gallery

7:00 P.M.

President's Banquet—Tennessee State Medical Association—C'est Bon Club—Alcoa Highway (Wives invited. Auxiliary Members with or without husbands present, urged to attend.)

☆

PRESIDENT'S BANQUET

C'est Bon Club—Alcoa Highway, Knoxville
Social Hour—6:00 P.M.—Banquet 7:00 P.M.

(Accommodations limited. Get your ticket early before 2:00 P.M. Monday, April 8.)

☆

Tuesday, April 9, 1963

9:00 A.M.

House of Delegates, Colonial Room and Ballroom C

Andrew Jackson Hotel—Knoxville

General Practice Day

General Scientific Program

9:00 A.M.-12:00 Noon

(Jointly presented in cooperation with the Tennessee Academy of General Practice)
Category I credit approved

Johnson Hall **Andrew Johnson Hotel**

ROBERT F. BAKER, M.D., Sparta, Vice President, TSMA, presiding

9:00 A.M.

"Medical Examiner System"

By: J. T. FRANCISCO, M.D., Memphis

9:30 A.M.

"Iatric and Endogenous Virilization of the Female"

By: E. C. HAMBLEN, M.D., Professor of Endocrinology, Duke University Medical Center, Durham, North Carolina

10:00 A.M.

Visit Exhibits

10:30 A.M.

"The Rising Incidence of Syphilis"
By: Warfield Garson, M.D., U.S. Public Health Service, Pittsburgh, Pa.

11:00 A.M.

Symposium on "Menorrhagia and Metrorrhagia"
Moderator—E. C. Hamblen, M.D., Durham, N.C.

"Endocrine Factors"
By: George A. Mitchell, M.D., Chattanooga

"Inflammatory and Neoplastic Causes of Bleeding"
By: Robert W. Noyes, M.D., Nashville

"Hematologic Mechanisms of Abnormal Uterine Bleeding"
By: Lemuel W. Diggs, M.D., Memphis

SPECIALTY SOCIETIES

TENNESSEE CHAPTER AMERICAN COLLEGE OF SURGEONS

TUESDAY, APRIL 9, 1963

Johnson Hall—Andrew Johnson Hotel

WELCOME

The Tennessee Chapter, A.C.S. extends a cordial invitation to all physicians attending the TSMA meeting, to be the guests at the scientific sessions of the A.C.S. on Tuesday, April 9. Residents, interns and students are especially welcome.

PROGRAM

Van Fletcher, M.D., Chattanooga, President, Presiding

1:30 P.M.

"Cervical Cancer: Cytologic Studies of Urinary Sediment"
By: Stacy Kinlaw, M.D., Knoxville
(Discussion and questions—10 minutes)

2:00 P.M.

"The Problem of the Steroid Ulcer—Clinical Manifestations and Pathogenesis"
By: Rene Menguy, M.D., Associate Professor, University of Kentucky School of Medicine, Lexington, Kentucky

(Intermission)

3:00 P.M.

"Soft Tissue Injuries on the Lower Extremities (Athletic Injuries)—(20 Minutes)
By: Baker Hubbard, M.D., Jackson
(Discussion and questions—10 minutes)

3:30 P.M.

"Electricity and the Heart Beat—Surgical Implications" (20 minutes)
By: William K. Swann, M.D., Knoxville
(Discussion and questions—10 minutes)

4:00 P.M.

Business Meeting
Tennessee Chapter—American College of Surgeons

6:00 P.M.

Evening Program

Social Hour and Banquet

Guest Speaker: Dr. Andrew Holt, President, University of Tennessee, Knoxville

The Evening Program will be conducted in the Andrew Johnson Hotel, preceded by a social hour and followed by the annual banquet.

Social hour—Colonial Room

Banquet—Johnson Hall

TENNESSEE ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

TUESDAY, APRIL 9, 1963

Holiday Inn (Downtown)

12:15 P.M.

Luncheon with question and answer round table discussion.

SCIENTIFIC PROGRAM

2:00 P.M.

Meeting called to order—Election of Officers
William Kennon, M.D., President, Presiding

2:10 P.M.

"Vein Graft Closure of a Nasal Septal Perforation"
By: Jim F. Waldron, M.D., Memphis

2:30 P.M.

"A Report of the Results of 139 Operative Cases of Cholesteatoma with Definite Proof of How and Why They Form"
By: James B. Miller, M.D., Nashville

2:50 P.M.

"Repair of Blow-Out Fractures of the Orbital Floor" (16mm. Color Movie)
By: Dale Teague, M.D., Knoxville

3:15 P.M.

"The Clinical and Pathological Appearance of Interesting External Conditions of the Eye"
By: Fred A. Rowe, M.D., Nashville

3:35 P.M.

(Recess)

3:40 P.M.

"Papilledema in Pseudo-tumor of the Orbit and Drusen of the Disk—A Clinical Evaluation"
By: Alice Deutsch, M.D., and Joe Talley, M.D., Memphis

4:00 P.M.

"Use of Alpha-chymotrypsin in Surgery of Traumatic Cataracts"
By: J. Ed Campbell, Jr., M.D., Knoxville

4:20 P.M.

"A Review of the Methods of Excision of Lid Tumors"
By: John P. Holmes, M.D., Memphis

4:40 P.M.

"A New Technique on Cutting Secondary Membranes"
By: John M. Wilson, M.D., Johnson City

TENNESSEE ACADEMY OF PREVENTIVE MEDICINE AND PUBLIC HEALTH

Rose Room **Andrew Johnson Hotel**

TUESDAY, APRIL 9, 1963

12:15 P.M.

Luncheon—Rose Room

1:30 P.M.

Scientific Program—Rose Room

"The Rising Incidence of Syphilis"

By: Warfield Garson, M.D., Pittsburgh, Pa.

Business Meeting



TENNESSEE DIABETES ASSOCIATION

TUESDAY, APRIL 9, 1963

Carousel Room **Andrew Johnson Hotel**

12:15 P.M.

Luncheon—Parlor A

Luncheon Speaker:

Beverly Towery, M.D., University of Louisville School of Medicine, Louisville, Kentucky
(Subject to be announced)

SCIENTIFIC PROGRAM

1:30 P.M.

"Clinical Comparison of Orinase and Deabinese—A Double Lined Study"

By: Jean Hawkes, M.D., Memphis

1:50 P.M.

"Metabolic Defects in Diabetic Muscle"

By: Howard Morgan, M.D., Associate Professor of Physiology, Vanderpilt University School of Medicine, Nashville

2:10 P.M.

"The Use of Azepinamid in Diabetes Mellitus"

By: Albert Weinstein, M.D., Nashville
Ralph W. Massie, M.D., Nashville
Addison B. Scoville, Jr., M.D., Nashville
(Presented by: Ralph W. Massie, M.D.)

2:30 P.M.

Clinicopathological Conference

3:00 P.M.

Business Meeting



TENNESSEE PSYCHIATRIC ASSOCIATION

(Joint meeting with)

TENNESSEE DISTRICT BRANCH—AMERICAN PSYCHIATRIC ASSOCIATION

TUESDAY, APRIL 9, 1963

Therapeutic Village **Eastern State Hospital**
Knoxville

12:30 P.M.

Luncheon

SCIENTIFIC PROGRAM

2:00 P.M.

"The Role of the Community Clinic in the Treatment of Psychiatric Patients"

By: Andrew S. Wachtel, M.D., Oak Ridge

"Problems in Therapy"

By: Eugene A. Hargrove, M.D., Raleigh, N.C.

"Where Do We Go From Here"

By: G. Wilse Robinson, Jr., M.D., Kansas City, Missouri

Business Meeting

To be announced: **Social Hour and Banquet**—Dinner Meeting will be held with announcement on details to be made later.



WOMAN'S AUXILIARY TO THE TENNESSEE STATE MEDICAL ASSOCIATION

TUESDAY, APRIL 9, 1963
Farragut Hotel
PROGRAM

8:30 A.M.-11:00 A.M.

Registration—Farragut Hotel Lobby

8:30 A.M.-11:00 A.M.

General Convention Session—Colonial Room

9:00 A.M.-4:30 P.M.

Hospitality—Arts & Crafts Exhibit—Frontier Room

12:15 P.M.-3:00 P.M.

Honors, Awards and Installation Luncheon—Holston Hills Country Club (Transportation furnished)

3:30 P.M.

Post Convention Board Meeting—Oak Room

4:00 P.M.-5:00 P.M.

Pick up Arts and Crafts entries—Frontier Room



Wednesday, April 10, 1963

General Scientific Program

Johnson Hall **Andrew Johnson Hotel**

J. W. Erwin, M.D., Blountville, Vice President, TSMA, presiding

9:00 A.M.

"Management of Arterial Emergencies"

By: Bruce R. McCampbell, M.D., Knoxville

9:30 A.M.

"The Management of the Thyrotoxic Crisis"

By: Beverly T. Towery, M.D., Professor of Medicine, University of Louisville, Louisville, Ky.

10:00 A.M.

Visit Exhibits

10:30 A.M.

"Recent Trends in the Management of Hemorrhoids"

By: G. Turner Howard, M.D., Knoxville

11:00 A.M.

Symposium on "Thyroid Dysfunction"

Moderator: Lamb B. Myhr, M.D., Jackson

"Hypothyroidism and Myxedema"

By: John W. Runyan, Jr., M.D., Memphis

"Hyperthyroidism"

By: Robert B. Gilbertson, M.D., Knoxville

"Thyroid Nodules"

By: Ralph R. Braund, M.D., Memphis

THE NEPHROTIC SYNDROME

(Continued from page 98)

nephritis was a manifestation of the hypersensitive state was made 50 years ago. Since that time, bacterial and organ antigen-antibody complexes have been used to produce experimental nephritis. More recent experimental work has shown that soluble antigen-antibody complexes with an antigen excess, become localized in glomeruli and vascular epithelium in association with tissue damage. These antigen-antibody complexes are known to release histamine and this has been suggested as a mechanism of tissue injury.[3]

Frozen sections of kidneys from patients with membranous glomerulonephritis coated with fluorescein-conjugated antihuman globulin demonstrated that gamma globulin was localized in the basement membranes of the glomerulus and appertaining structures. A slight modification of the Boyden hemagglutination technic demonstrated antibodies to extracts of renal tissue in the serum of 71% of cases of acute glomerulonephritis (Type I) and 89% of cases in the acute phase of the "nephrotic syndrome."[4] Although immune mechanisms are associated with both types of nephritis, it must be emphasized that such mechanisms are not necessarily the initiating factors. It is conceivable that antibodies or acute phase substance may arise secondary to initial tissue damage and have no pathologic effect, or if they do have such an effect, it is to worsen an already existing disease process.

The use of adrenal cortical steroids in both experimental and clinical nephritis has resulted in a number of significant observations which have been summarized by Becker. His own studies suggest that the best clinical results of steroid therapy are seen in the patients with little or no alteration in renal structure as seen by light microscopy, and frequently adverse effects are noted in patients with the nephrotic syndrome due to proliferative or Ellis Type I glomerulonephritis. On the other hand, certain cases of membranous or Ellis Type II glomerulonephritis may be altered favorably by steroid therapy. Clarification of the effects of steroids on these two types of nephritis will be most useful.

The marked proteinuria and the general body wasting in patients with the nephrotic syndrome have made high protein diets a necessary requisite in any therapeutic regimen. However, the effect of high dietary protein is vastly different in patients with Type I and Type II nephritis. In the former, protein intake is usually limited because of the low glomerular filtration rate, and a high protein intake increases the severity of the disease process in experimental animals. However, patients with membranous or Type II glomerulonephritis, with little or no change in glomerular filtration rate, may show both subjective and objective improvement following high caloric, high protein diets.

For both prognosis and therapy, it is important to distinguish the lesion producing the nephrotic syndrome. Judicious use of steroid therapy, diet and other supportive measures can offer much to a patient with glomerulonephritis. Finally, with the advent of newer technics and information, it is hoped that the progression of either form of glomerulonephritis may be halted or at least altered.

A. B. S.

References

1. Becker, E. L.: The Nephrotic Syndrome in Adults, Bull. New York Acad. Med., 38:3, 1962.

2. Ellis, A. W. M.: Natural History of Bright's Disease, Lancet 1:1, 34, 72, 1942.

3. Germuth, F. G., Jr. and McKinnon, G. E.: Studies of the Biological Properties of Antigen-Antibody Complexes. I. Anaphylactic Shock Induced by Soluble Antigen-antibody Complexes in Unsensitized Normal Guinea Pigs, Bull. Johns Hopkins Hosp. 101:13, 1957.

4. Liu, C. T. and McCrory, W. W.: Autoantibodies in Human Glomerulonephritis and Nephrotic Syndrome, J. Immunol. 81:492, 1958.

5. Smadel, J. E. and Farr, L. E.: Experimental Nephritis in Rats Induced by Injection of Antikidney Serum. II. Clinical and Functional Studies, J. Exper. Med. 65:527, 1937.

THE DOCTOR AND HIS STATE MEDICAL ASSOCIATION

This issue, with its program of the Annual Meeting next month, should remind those who have not planned to attend it that they and the Association have mutual responsibilities and obligations.

---

1. Osler, Sir William: Aequanimitas, Philadelphia. P. Blakiston & Co. 3rd Ed., 1932.

Years ago the county and state society held the pivotal position in the doctor's continuing education and thus his loyalty. Here he learned what was new and heard reviewed that already known. It was 60 years ago that Osler,[1] in 1903, as speaker at the centennial celebration of the New Haven Medical Association presented his essay *On the Educational Value of the Medical Society*. He said that the medical society, as a clearing house for intellectual rating, permitted a doctor to "find out his professional assets and liabilities." Osler also commented that we as doctors were "apt to carry on our shelves stale, out-of-date goods" and that the society "enables him to refurnish his mental shop with the latest wares." The speaker, however, thought that the function of laying "a foundation for that unity and friendship which is essential to the dignity and usefulness of the profession" was in some respects the most important one.

Words need not be wasted upon what modern medicine has done to the county and state societies as purveyors of postgraduate and/or continuing education—nor should too many tears be shed about this. Knowledge has become too specialized since Osler's day to expect the average county or state society's program to offer more than a small bit of what the practitioner should hear or read in a year. Leave alone the specialist, the general practitioner also often has very specialized interests. So one need not review what is so well known, that the doctor, in whatever type of practice, has turned to postgraduate courses, special societies and their meetings, and to hospital staff meetings for his medical diet of the new.

Yet, I do not believe it is carrying rationalization too far to say no member of the State Association is so erudite that he cannot return from a state meeting with something new, learned from a guest speaker or from a colleague in the meeting of his specialty society. What a member might learn professionally at such a meeting is difficult to argue out. If his intellectual arrogance is such that he believes no one in the State can teach him anything, he naturally will not attend a meeting or, if he does, derive nothing from it.

But I must return to Osler's comment of the society's function of laying "a foundation for that unity and friendship which is essential to the dignity and usefulness of the profession"—a function which time has not tarnished one bit, but which time has actually mounted as a gem. Let us leave out for the moment the need of "unity" in political action! Let us leave out that "unity" which only can support the ever-expanding function of the State Association in the mechanics of health insurance and other third party programs—an amazingly mounting pile of paper and clerical work of which the membership is ignorant and oblivious, except for the officers and members of certain of the Association's committees! Let us only consider all that is implied in the Hippocratic Oath and "the dignity and usefulness of the profession." Good medical care in a community can rest only on "unity and friendship" in the profession—and this can actually be attained only in the county society. (This may be more difficult to perceive in the larger professional body of an urban community, though it is quite apparent in a hospital's staff.) The interplay of professional ethics and the patient-doctor relationship (intangible to the layman and politician) only permit of good medical care. This is particularly true for the "shopper" for medical attention, whether as a manifestation of a personality disorder or because of incurable chronic disease. Only friendship through the county society can deal with these exigencies of private practice.

Attendance at the meeting of the State Association extends these paramount values of the county society. Furthermore, it can teach something new, and probably will, not only by the program but also in the technical exhibit. The latter is not merely a sales gimmick. It permits the practitioner to see and handle the instrument or the prosthesis which he has seen described on paper. He can discuss the new drug with the manufacturer's representatives. The doctor can thumb the new book or journal at the publisher's exhibit.

That the essential "unity and friendship" is fostered by seeing former classmates and teachers is undeniable. Trading stories of "interesting cases" is a large part of every

meeting and, often thereby, is found a consultant who has an especial interest in some phase of medicine, and by seeing a referred patient adds another brick to the structure of good medical care, enhancing the "dignity and usefulness of the profession."

R. H. K.

Special Item

If we had a President-Elect's Page, I am sure our President-Elect would wish to use it for an expression of thoughts about which he feels keenly. Lacking this, he can have appeal to the thoughtful consideration of the Association's membership in this column.—Editor.

Address to House of Delegates Tennessee State Medical Association

Bland W. Cannon, M.D., Memphis, Tenn.

You have recalled the House of Delegates for the purpose of revocation of the Resolution concerning the permission of citizen-applicants being allowed to take the Basic Science examination and thus proceed to the examinations for license to practice in our state.

Among those of you who have requested this recall are the statesmen and leaders of our medical society, in the past and probably in the future. I can only cherish this opportunity to speak before you since you have chosen me to lead this Society during the coming year. In doing so, you confided in my judgment and ability to do what is best for the practice of medicine in the State of Tennessee. Be assured, gentlemen, there is no default or even uncertainty in my intentions to fulfill the confidence that you have awarded.

You must know that up to the present time I have not, by intention, appeared before you to display opinions or reasonings for the Resolution on which our Legislative Committee worked so diligently for many months with meetings, investigations and consultations before their final Resolution. When the Resolution was placed before this House of Delegates on December 9, 1962 and approved, I admit I was greatly pleased.

If at all possible let us all now refrain from emotional display. We are all cognizant that there has developed a maligned aura concerning the possibility of lowering the standard of medical practice in this State by permitting the citizen-applicant to attain, through examination, the possibility of participating in medical practice. We are not divided on our purpose to give the people of this State the best possible medical service. There are certain factors which I wish to mention in the hope of stimulating objective, empathetic thoughts so the decisions of this House will represent the truth of this purpose.

First of all we must realize, as we project medical practice in the future, that there is an increasing deficit of physicians which will be realized within the next ten years in our United States. These statistics have been compiled in many ways and were even represented as the causative factor for the need of centralized control of medicine in President Kennedy's recent address. To make yourself aware of this shortage which is creeping in, you can look to your present locale. The utilization of foreign interns and residents in your programs is evident because of insufficient numbers of graduates to fulfill opportunities and needs in these institutions. This deficit will be transposed into our sphere of practice. When such occurs all states may vie for the best talents available and we may not have the opportunity of being as selective as we can be today. Any lag in fulfilling demands for medical service will add incentive to third party control.

This part alone is not of too great concern to us—yet. If we had the possibility of modifying our methods of establishing qualifications, then we would be able to attract and select the best of any available physicians who could be utilized in our community.

The second, and certainly more meaningful thought, concerns responsibility. Are we not defaulting in our responsibility to determine the qualifications of an individual and his ability to become a practitioner —or shall we depend upon the Law for limitations which may say that no citizen-applicant shall be afforded the opportunity for practice in the future? Or might we visualize in the future the Law changed to say that any physician over the age of 60 shall not be qualified to practice? Or even

the possibility that if you do not belong to a certain group, or institution, you too may not be allowed to practice? I would detest the idea of depending solely upon lay representatives to determine the qualifications or attributes of our colleagues.

Are we to consider that our present board of examination is merely a mock test? That this is not a sufficient screening process to know whether a man is qualified and has the desirable qualities for a practitioner in our community?

I have the opinion of Doctor O. W. Hyman of our present Basic Science Examining Board, under whose guidance this board has functioned for a number of years. I also have obtained the opinion from the Secretary of our Medical Examiners Board.

If we do not believe that these Boards are sufficient in attesting to the qualifications of an individual for practice, or if we feel that further recommendations or sponsorship should accompany an applicant for examination, we should accept the responsibility of rectifying our admitted failure in our evaluation system. We should not depend upon a law which was enacted during the period when inadequate evaluations of applicants did produce, I am told, some undesirables among our ranks. Yet, it has been difficult to find definite examples of this occurring in our community in spite of the constant referral to this occurrence during World War II. As many of you know, I am much too young to have any personal knowledge that might be factual in this.

The last consideration I wish to mention, at the risk of being somewhat emotional, is that our profession of medicine embraces certain attributes and attitudes which are comparable with the description of a physician by Robert Louis Stevenson, or that termed Caritas Medici by Doctor W. B. Bean—compassion, or love for fellow man, —this is the quality of which I speak. For who, in a shrinking world, is now to be considered an alien in medicine whose dedication embraces relief of suffering through the scientific application of the Art of medical practice?

Since we have prided ourselves that we, as individuals and as a group, must embrace the qualities of compassion and love for fellow man, we must be careful in our decisions or else we will fall victims to an attack which has already been leveled. Are we in a competitive business of restricted trade, of a closed shop, a dues-paying union on the par with all other such organizations and groups—or do we intend to remain on that intellectual level of scholarship and compassion where we evaluate individuals as we evaluate patients, where we make decisions in the interest of Medicine and in the interest of Medical Service?

Be careful, therefore, in your decision not to display a constricted vision—not to be intellectually smug. Be careful not to confuse truth with opinions colored by smallness or prejudices, but be objective and act in accord with the feelings which you yourself held when deciding that you wanted to become a physician.

We should accept the challenge to modify the statutes to embrace those qualified and desirable and, if the Resolution passed heretofore has objections, let not this meeting adjourn with merely the revocation of the Resolution, but let this gathering avoid negativism and put forth a constructive Resolution with the same intent of foresight and fairness.

DEATHS

Dr. John Carlyle Witherington, 73, Covington, died from injuries received in a highway accident near Covington. His death occurred on January 18th.

Dr. Sam C. Cowan, Sr., 79, Nashville died February 6th in Park Vista Hospital.

Dr. N. S. Richie, 79, Chattanooga, died January 31st in a Chattanooga Hospital

Dr. Karl K. Boyd, 48, Athens, died January 18th as the result of a heart attack.

Dr. Harold Sparr, 69, Memphis, died January 22nd following a heart attack.

Dr. L. D. McAuley, 89, died January 27th in a Somerville, Tennessee, hospital.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Nashville Academy of Medicine and Davidson County Medical Society

The Nashville Academy of Medicine held its combined quarterly medical meeting on

February 19th in the Hermitage Hotel. The sessions, combined with the hospital staff meetings, began with a dinner followed by the society's scientific program.

"Muscular Distrophy" was the topic presented by Dr. Frank H. Tyler, professor of medicine, University of Utah College of Medicine, and chairman of the United States Public Health Service General Medicine Study Section.

"Ovarian Tumors—Clinic Approach" was the subject presented by Dr. Clarence Sutherland, in the private practice of OB-Gyn in Jackson, Mississippi, and assistant clinical professor of OB-Gyn at the University of Mississippi School of Medicine.

Dr. Joseph C. Cerny, instructor of urology, University of Michigan Medical School, attending physician in urology, VA Hospital, Ann Arbor, spoke on the subject, "Recent Advances in Management of Acute Renal Failure."

Chattanooga-Hamilton County Medical Society

The Society held the annual heart symposium on January 31st in the Erlanger Hospital. The symposium was presided over by Dr. Wesley H. Stoneburner, chairman. Speakers included: Dr. Robert Wilkins, Dr. Harold Horak and Dr. David Parks Hall.

Grand rounds were conducted at Baroness Erlanger Hospital and afternoon lectures were given in the Interstate Building auditorium.

A banquet was sponsored at the Chattanooga Golf and Country Club where the guest speaker was Dr. Robert Wilkins, chairman, department of medicine, Harvard Medical School, Boston.

Knoxville Academy of Medicine

The Society met for its regular monthly meeting on February 8th in the Academy of Medicine Building auditorium. Dr. R. H. Hutcheson, Commissioner of Public Health for the State of Tennessee presented a program by the State Health Department regarding anti-tuberculosis therapy.

Memphis-Shelby County Medical Society

The Society's monthly meeting was held on February 5th in the auditorium of the Institute of Pathology, and sponsored by the Memphis Heart Association. The scientific paper was by Dr. William Dock, State University of New York, Downstate Medical Center, Brooklyn; the subject was "Heart and Your Well Being." The meeting of the House of Delegates followed the scientific program.

Sumner County Medical Society

The Society held its monthly meeting on January 15th in the Sumner County Hospital in Gallatin. New officers for 1963 were elected and Dr. Ira N. Kelley of Hartsville was named president, Dr. R. C. Webster, Gallatin, vice president, and Dr. T. F. Carter of Westmoreland was named secretary.

Coffee County Medical Society

New officers of the Society are, Dr. Edwin E. Gray, Tullahoma, president, Dr. Harry Baer, Tullahoma, vice president, and Dr. John A. Shields, Manchester, secretary-treasurer.

NATIONAL NEWS

The Month in Washington
(From the Washington Office, AMA)

President Kennedy submitted to Congress a proposed new multi-million dollar program to combat mental illness and mental retardation calling for the establishment of hundreds of community health centers.

The program would be financed jointly by the federal and state or local governments, similar to the Hill-Burton program for construction of hospitals. It was estimated the program would cost hundreds of millions of dollars eventually, if approved by Congress and fully implemented at the state and local level. Congress was asked to appropriate $31.3 million in fiscal 1964 for the program.

Kennedy listed three objectives: (1) determining the causes of mental illness and mental retardation and finding effective treatments for them; (2) research and training of skilled personnel; (3) strengthening and improvement of programs and facilities for treating the mentally afflicted.

"This approach is designed, in large measure, to use federal resources to stimulate

state, local and private action," Kennedy said. "When carried out, reliance on the cold mercy of custodial isolation will be supplanted by the open warmth of community concern and capability. Emphasis on prevention, treatment and rehabilitation will be substituted for a desultory interest in confining patients in an institution to wither away."

The President asked for prompt Congressional approval of legislation that would:

(1) Authorize grants to the states beginning in fiscal 1965 for establishment of comprehensive community mental health centers with the federal government providing from 45 to 75 per cent of the project costs and short-term grants for initial staffing costs. The federal government would provide up to 75 per cent of operation costs in early months and phase out such support in about four years.

(2) Set up a five-year program, starting with $5 million in the next fiscal year, for project grants to stimulate state and local health departments in planning, in initiating and developing programs. The goal would be prevention of mental retardation.

(3) Establish project grants to states to promote public planning for comprehensive state and community action on retardation, plus provision of federal funds for up to 75 per cent of the construction costs of mental retardation research centers.

(4) Amend the Vocational Rehabilitation Act to provide additional federal financial assistance for services to the mentally retarded and others whose vocational rehabilitation potential is difficult to determine. The legislation would permit rehabilitation services to a mentally retarded person up to 18 months.

★

The Kennedy Administration's budget for fiscal 1964 calls for increases for all activities of the National Institutes of Health with a boost of nearly 50 per cent, to $166 million, for mental health work.

The estimated expenditures in the new budget for medical research through NIH totaled $850 million, $113 million more than the estimate for the current fiscal year. The total was somewhat surprising in that Kennedy expressed dissatisfaction last year when Congress appropriated $100 million more for NIH than he had requested.

In a special message to Congress "on improving American health," President Kennedy renewed requests for grants for medical and dental schools, air pollution control, health research, vocational rehabilitation, encouragement of group practice, improving maternal and child care and health and community services.

The President also said there was a "clear and urgent need" for tighter control over the marketing of food, drugs, therapeutic devices and cosmetics.

Kennedy urged a five-year extension of the Hill-Burton Act providing federal aid for construction of health facilities, due to expire June 30, 1964. He asked an additional $35 million to provide financial assistance for modernizing or replacing hospitals and nursing homes under the law.

He said the need for "high quality" nursing homes would be "especially great" and urged an increase in the budget for such facilities from $20 million to $50 million annually.

The President asked Congress to adopt legislation to abate interstate air pollution along the lines of the existing water pollution control enforcement measures.

The AMA again supported federal aid in construction, expansion and modernization of medical school facilities—"a one-time expenditure of federal funds . . . where the maximum freedom of the school from federal control is assured."

"If the high standards of medical education are to be maintained, increased attention must be given to the adequacy of physical facilities, the availability of qualified instructors and the availability of teaching material and patients for the clinical phases of medical education," Dr. Dorman told a house Committee.

"Any attempt to increase the number of medical students without regard to these conditions will result in a lowering of the standards of medical education. At this time, priority should be given, in our opinion, to an increase and improvement in the physical facilities available for medical education."

The Federal government is investigating cancer cure claims by the makers of Krebiozen, and checking reports that the drug was being illegally sold.

The Food and Drug Administration set out to gather clinical records on patients who had been treated with the drug and who were reported to have been helped or cured by it. The FDA planned to try to evaluate whether Krebiozen "has had any favorable influence in the treatment of cancer."

Commenting on quackery in the field of cancer in a statement at a hearing of the Senate Committee on Aging, Dr. Gerald D. Dorman, a member of the AMA Board of Trustees, said:

"A cancer product still being promoted at this time is 'Krebiozen', a product of extreme dilution, being one part of whatever the active ingredient is supposed to be to 100,000 parts of light mineral oil. This 'cure' sells for $9.50 for 1 cc. ampule, which is about one-fifth of a teaspoonful. Competent microchemists have testified to their inability to find anything in an ampule of this product but the mineral oil."

An offer by Krebiozen Research Foundation, Chicago, to bring to Washington, patients it claims were cured of cancer by taking Krebiozen was rejected by the Department of Health, Education and Welfare.

"The presentation of patients to give testimonials without any opportunity for further study of their complete medical records would contribute nothing at all toward solution of the scientific question of Krebiozen's merit as an anti-cancer drug," Boisfeuillet Jones, Special Assistant to the HEW Secretary, said.

Dr. Robert E. Shank, chairman of the AMA Council on Foods and Nutrition told the Senate Committee on Aging that the vitamin industry is selling people pills they do not need.

"Perhaps the most lucrative deception in quackery is perpetrated by nearly every distributor of vitamins and vitamin-mineral supplements," he said. "Americans each year are spending hundreds of millions of dollars on (worthless or unnecessary) pills, powders, capsules and compounds in search of a shortcut to health."

MEDICAL NEWS IN TENNESSEE

Memphis Academy of Internal Medicine

The Society held a dinner meeting on January 25th at the Chickasaw Country Club. The guest speaker was Dr. Philip A. Tumulty, associate professor of medicine, Johns Hopkins University in Baltimore, Maryland. Dr. Tumulty discussed "New Concepts of Systemic Lupus Erythematosus."

Knoxville Society of Internal Medicine

The Society held a meeting on February 11th in the Andrew Johnson Hotel. The speaker was Dr. John Preedy, associate professor of medicine and endocrinology at Emory University in Atlanta. His subject was, "Hyperparathyroidism."

Second Annual Conference On Mental Retardation

The Second Annual Conference on Mental Retardation was presented at the Greene Valley Hospital and School in Greeneville, on February 28-March 1. An outstanding program was presented and the conference was reported to be one of the best held in the South on the subject of mental retardation. The speakers included: Dr. Joseph J. Baker, Commissioner of Mental Health for the State of Tennessee, outstanding physicians, and lay leaders in the mental health field. Noted speakers were: Dr. Gerald J. Bensberg, Southern Regional Education Board, Atlanta; Dr. Joseph C. Denniston, Superintendent of the Clover Bottom Hospital and School, Nashville; Dr. H. A. Waisman, Professor of Pediatrics, University of Wisconsin, Madison, Wisconsin; Dr. Clemens E. Benda, Director of Research, Walter E. Fernald School, Waverly, Massachusetts.

Mid-South Postgraduate Medical Assembly

The Mid-South Postgraduate Medical Assembly held the 1963 meeting at the Peabody Hotel in Memphis, February 12-15. It brought 19 noted physicians as lecturers on progress and problems in medical science. Topics included, alcoholism, cancer, heart and other diseases.

The Assembly drew some 1,000 physicians and medical students from nine states, for four days of intensive instruction on medical and surgical problems and progress.

Among the opening day speakers were: Dr. Robert Turell of New York; Dr. H. J. Svien of Rochester, Minn.; Dr. F. H. Wright of Chicago; Dr. Henry G. Cramblett of Winston-Salem, North Carolina; Dr. Edward B. Singleton of Houston, Texas; Dr. Herbert D. Adams of Boston; Dr. Victor F. Marshall of New York; and Dr. Jacoba C. de Neef, Columbus, Ohio.

Dr. J. P. Price, general practitioner of Monticello, Arkansas, was named president-elect of the Mid-South Medical Assembly and will assume office in 1964. Dr. Stanley A. Hill, Corinth, Mississippi, assumed the presidency, succeeding Dr. Gilbert J. Levy, Memphis. New vice-presidents elected were: Dr. G. Swink Hicks, Natchez, Mississippi; Dr. John Armstrong, Somerville, Ten-



The University of Tennessee's ever-growing Medical Center includes 3 new buildings under construction and three others on which construction will begin this year. In addition, 3 new buildings are proposed.

Buildings now in the Medical Center are: (1) Hyman (Administration) Building (2) Crowe (Pharmacy-Pharmacology) Building (3) Nash (Biochemistry-Physiology) Building (4) Mooney Library (5) Wittenberg (Anatomy) Building (6) Dental Building (7) University Center (8) University Dormitory (9) Campbell (Orthopedic) Clinic (10) College of Nursing Building (11) Eve Hall (12) Baptist Memorial Hospital (13) Baptist Memorial Hospital, Madison-East (14) John Gaston Maternity Hospital (15) John Gaston Hospital (16) Institute of Pathology (17) Medical-Surgical Building (18) Gailor Psychiatric Day Care Center and Out-patient Diagnostic Clinic (19) Institute of Clinical Investigation (20) Marcus Haase Residence for Women (21) Jefferson Pavilion (22) Cancer Research Laboratory (23) West Tennessee Tuberculosis Hospital (24) Le Bonheur Children's Hospital (25) E. H. Crump Memorial Hospital (26) Les Passees Rehabilitation Center (27) West Tennessee Cancer Clinic (present location) (28) Tennessee Psychiatric Hospital and Research Institute (29) Alcoholic Treatment Center (30) Frank T. Tobey Memorial Children's Hospital (31) Memphis and Shelby County Health Department (32) Baptist Hospital Nurses' Dormitory.

Buildings under construction, to be built this year, or proposed are:

(A) Dental-Pharmacy Research Building (B) Memphis Speech and Hearing Center (C) Radiology Research and Clinical Services Building (D) Research Hospital (E) James K. Dobbs Medical Research Institute (F) Clinical Science Building (proposed) (G) United Cerebral Day Care Center (proposed) (H) West Tennessee Cancer Clinic (I) Neuro-Muscular Institute (proposed) (J) Baptist Hospital Medical Building No. 2

nessee; Dr. A. G. Shirey of Hayti, Missouri, and Dr. Charles Archer of Conway Arkansas.

The highlight of the Assembly was an address by Dr. Edward R. Annis, Miami, President-Elect of the American Medical Association, on the evening of February 14th.

Memphis Eye, Ear, Nose and Throat Convention

The Memphis Eye, Ear, Nose and Throat Convention preceded the Mid-South Medical Assembly. Dr. Paul H. Holinger, professor of broncho-esophagology at the University of Illinois College of Medicine, was the principal speaker on the subject of benign and cancerous tumors of the larynx. The sessions were held in the Peabody Hotel.

Memphis Surgical Society

The Memphis Surgical Society met on January 16th in the University Club. Reports from the department of Experimental Surgery of the University of Tennessee College of Medicine were given by Dr. Edward H. Storer, Dr. James W. Pate, Dr. Roger T. Sherman and Dr. William H. Lee, Jr. Dr. Harwell Wilson presided for the meeting.

Vanderbilt University School of Medicine

One of the first decisions and announcements made by Chancellor Alexander Heard, as he assumed his new post at Vanderbilt on February 1, was the selection of Dr. Randolph Batson as Dean of the School of Medicine. Dr. Batson had been Acting Dean since the resignation of Dr. John Patterson, September, 1962.

After receiving his A.B. degree from Vanderbilt University, Dr. Batson, a native of Mississippi, received his M.D. degree from Vanderbilt in 1942. Subsequent to service in World War II and completion of residency training in pediatrics at the School of Medicine, Dr. Batson became a member of the faculty of the Department of Pediatrics and advanced to full professorship. His scientific contributions have been in the field of immunization especially against poliomyelitis. He has made numerous contributions in improving the care of paralyzed patients in respirators and other assistive devices.

Chancellor Heard in announcing Dr. Batson's appointment said, "We are looking forward to a long period of vigorous and farsighted educational development under Dr. Batson's leadership."

★

The USPHS has made a grant of $255,000 for the construction of two floors of the Northeast Wing, presently being built, as space for research laboratories.

★

The Department of Obstetrics and Gynecology has received a grant from the USPHS in the amount of $118,071, toward renovation of its research area.

Meharry Medical College

On February 25, 400 doctors, educators and businessmen from all areas of the country honored Dr. Harold D. West, President, at a banquet. The principal speaker was Federal Trade Commissioner, A. Leon Higginbotham, Jr., who spoke on "Light, Liberty and Learning." In pointing to the contributions of Meharry he said it is important to realize that half of the Negro physicians and dentists in this country have been trained at the school.

★

Dr. Harold L. Stewart, chief of the National Institutes of Health pathology laboratory, discussed cancer producing chemical compounds, on January 30. The lecture was sponsored under a $400,000 five-year grant to Meharry from the National Institutes of Health for training pathologists.

University of Tennessee College of Medicine

A five-year study which may ultimately explain why some couples remain childless is being conducted by Dr. James S. Davis, associate professor of anatomy. Experimental animals will be used in the study, which is being financed by a $105,000 grant from the General Medical Sciences Institute of the U.S. Public Health Service.

★

The National Heart Institute of the U. S.

Public Health Service awarded Dr. Fred E. Hatch, instructor in medicine, a $57,705 grant for a three-year study of abnormalities of kidney function in patients at the City of Memphis hospitals, who have sickle cell anemia.

★

Dr. Jack Roane, presently studying under a fellowship in pediatric allergy, will join the staff on July 1 as an instructor in pediatrics, and will work part-time in the school's child development study.

★

The Tennessee Department of Public Health has approved a Memphis request for a $226,104 federal grant in aid toward construction of a new radiology research and service building at John Gaston Hospital.

PERSONAL NEWS

Dr. Harold L. Collins, Nashville, recently addressed the Bruceton Lions Club.

Dr. McCarthy DeMere, Memphis, was a recent guest speaker at the Memphis Plaintiffs Lawyers Association.

Dr. Arden Butler, Ripley, has been presented the Jaycee's annual award as Ripley's Young Man of the Year.

Dr. James N. Etteldorf, Memphis, recently served as a guest faculty member at the University of Arkansas, Little Rock, for a two-week postgraduate conference sponsored by the American Academy of Pediatrics.

Dr. Aubrey B. Harwell, Nashville, recently addressed the Tennessee Nursing Home Association.

Dr. Jack Adams, Chattanooga, has been named Chairman of the Health and Sanitation Committee of the greater Chattanooga Chamber of Commerce.

Dr. William F. Schmidt, Bristol, was a guest speaker at the Kiwanis Club.

Chattanooga physicians named to the staff of officers of Memorial Hospital are: **Dr. Arch H. Bullard,** chief of staff; **Dr. A. Merton Baker,** chief of surgery; **Dr. Frank B. Graham,** secretary; **Dr. William D. Brackett,** chief of general practice; **Dr. Robert W. Myers,** chief of medicine; **Dr. William B. MacGuire,** chairman, intern-resident committee; **Dr. Bruce A. Elrod,** pathologist; **Dr. R. Van Fletcher,** chairman, credentials committee; and **Dr. W. Powell Hutcherson,** chief of obstetrics and gynecology.

Dr. Philip Lewis, Memphis, is a member of the Executive Committee Section on Ophthalmology and Otolaryngology of the Southern Medical Association.

Dr. Shelby O. Turner, Jamestown, has opened his office in the Reagan Building.

Dr. Homer Isbell, Maryville, has been chosen one of the physicians from throughout the United States to serve in an Algerian Hospital under the CARE program.

Dr. Douglas H. Riddell, Nashville, has been named chairman of the Board of Directors of the Nashville Academy of Medicine.

Dr. David H. Turner, Chattanooga, has been certified as a diplomat of the American Board of Ophthalmology.

Dr. E. Wayne Gilley, Chattanooga, spoke on the subject "Recent Advances in Heart and Blood Vessel Diseases" before the Athens Kiwanis Club.

Dr. Burgin H. Wood, LaFollette, has gone to Greeneville, South Carolina, for advanced training as a resident in surgery.

Dr. C. D. Hawkes, Memphis, is the new president of the Methodist Hospital medical staff. He succeeds **Dr. J. Malcolm Aste. Dr. Nicholas Gotten,** Memphis, was re-elected chief of staff for a fifth term. **Dr. Cleo Stevenson** was named vice president of the medical staff and **Dr. Alvin E. Smith** was elected secretary.

Dr. Joseph James Dodds, formerly of Rochester, Minnesota, has become associated with the Campbell Clinic Association in Chattanooga.

Dr. George Harvey, Jackson, has been elected chief of the Jackson-Madison County General Hospital medical staff. Elected as assistant chief of staff was **Dr. Lamb B. Myhr** and chiefs of the various service departments are: **Dr. Allen N. Williams, Jr.,** general practice; **Dr. Blair D. Erb,** medicine; **Dr. J. Hughes Chandler,** surgery; **Dr. Roy A. Douglas, Jr.,** obstetrics and gynecology; **Dr. Blanche S. Emerson,** pediatrics; **Dr. Louis G. Pascal, Jr.,** radiology; **Dr. Chester K. Jones,** pathology; and **Dr. Robert S. Hill,** anesthesiology. All are from Jackson.

Dr. James G. Hughes, Memphis, is the author of a new book entitled, "Synopsis of Pediatrics."

Dr. Elliott Newman, Nashville, recently addressed the Exchange Club.

Dr. Ben R. Mays, Nashville, has been elected president of the St. Thomas Hospital medical staff. **Dr. James A. Kirtley,** Nashville, was named president-elect and **Dr. Howard Foreman** was elected secretary-treasurer. **Dr. Fred Goldner,** Nashville, succeeds **Dr. James Callaway** as chief of internal medicine. Reappointed as chief of their respective services were: **Dr. Robert Chalfant,** OB-Gyn.; **Dr. Rollin Daniel,** surgery; and **Dr. J. M. Strayhorn,** pediatrics.

Dr. R. F. Ackerman, Memphis, was a recent speaker at the meeting of the Lay Diabetic Society of Memphis.

Dr. Fred Ownby, Nashville, has resigned from the Civil Defense Advisory Council.

Dr. Lloyd H. Ramsey, Nashville, recently addressed a joint meeting of civic clubs in Dickson.

Dr. A. Julian Ahler has been named Harriman's Outstanding Young Man of the Year.

Dr. Joseph A. Rothschild, Memphis, is the newly elected President of the Memphis Pediatric Society, succeeding **Dr. Fontaine S. Hill.** Other officers elected were: **Dr. Lloyd Crawford**, vice president, and **Dr. Jack Segal**, secretary and treasurer.

Dr. Clifton E. Greer has been elected as president of the staff of the Nashville General Hospital. **Dr. Joseph E. Hurt** is vice-president, and **Dr. John M. Tanner**, secretary-treasurer.

BOOK REVIEW

Current Diagnosis and Treatment, by Henry Brainerd, M.D., Professor of Medicine and Chairman, Department of Medicine, University of California School of Medicine, San Francisco; Sheldon Margen, M.D., Research Biochemist, Department of Biochemistry, and Milton J. Chatton, M.D., Assistant Clinical Professor of Medicine. 843 pages. Los Altos, Cal. Lange Medical Publication, 1963. Price $9.50.

The format of this book is such that it lends itself to the proposed Annual Edition to meet the objectives of being "up to date." The plan used, dealing essentially with the nonsurgical diseases, is that of indicating certain essential information about disease entities but in an abbreviated form. These items include those related to diagnosis, definitions of the disease, brief outline of cause, clinical findings, differential diagnosis, and complications in the course of the disease. These brief presentations, if they do not recall a rounded out clinical picture for the reader, should stimulate further reading in a more standard textbook of medicine, and the Editors point out that *Current Diagnosis and Treatment* should not and cannot replace such textbooks.

On the other hand, the style of presenting the material should appeal to the practitioner of medicine, since the book provides a most convenient reference book, particularly with regard to current thoughts in therapy, and it is one that he should like to keep at "his elbow." Obviously the editor's objective in re-issuing this book annually is keeping the sections on therapy in line with the rapidly current changes taking place in so many areas of treatment.

The busy internist and family physician should have a look at this book, and it is the reviewer's guess that such readers will find much use for it and will wish to "repeat" as annual editions appear.

ANNOUNCEMENTS

Calendar of Meetings 1963

State

March 18-22—Postgraduate Course, "Basic Clinical Electrocardiography," University of Tennessee College of Medicine, Memphis

March 21-23—Postgraduate Course, "Surgery of the Hand" University of Tennessee College of Medicine, Memphis

April 7-10—Tennessee State Medical Association Annual Meeting, Knoxville

April 18—Postgraduate Course, "Problems in Endocrinology," Vanderbilt University School of Medicine, Nashville

May 9—Postgraduate Course, "Laboratory Studies and Their Interpretation," Vanderbilt University School of Medicine, Nashville

Regional

March 18-21—Southeastern Surgical Congress, Miami Beach, Florida

March 22-27—North American Clinical Dermatological Society, Diplomat, Hollywood, Florida

March 28-30—Fourth Colloquy on Advances in Medicine, Pulmonary Insufficiency, University of Oklahoma, School of Medicine, Oklahoma City

April 1-5— Thirty-Sixth Annual Spring Congress in Ophthalmology and Otolaryngology sponsored by the Gill Memorial Eye, Ear, Nose and Throat Hospital, Roanoke, Virginia

April 15-18— American Dermatological Association Meeting, The Homestead, Hot Springs, Va.

May 5-8— Medical Association of Georgia 109th Annual Session, Aquarama, Jekyll Island, Georgia

May 13-16— Mississippi State Medical Association, Biloxi, Mississippi

May 13-15— American Gynecological Society, New Orleans, Louisiana

National

March 17-22—American College of Allergists, New York City

March 29-31—American Society of Internal Medicine, Denver, Colorado

Mar. 29-
Apr. 5— American Academy of General Practice, Chicago, Illinois

April 1-5— American College of Physicians, Denver, Colorado

April-21-24— American College of Obstetricians and Gynecologists, New York City

June 16-20— American Medical Association Annual Meeting, Atlantic City, New Jersey.

Postgraduate Course in Endocrinology Vanderbilt University School of Medicine

The Departments of Medicine and Pediatrics are offering a one-day Postgraduate Course on "Problems in Clinical Endocrinology, beginning at 8 a.m. on Thursday, April 18, to be held at Vanderbilt University Hospital. Dr. Lawson Wilkins of Johns Hopkins University will participate as Visiting Professor. The program will consist of case presentations and discussions of current concepts of physiology, diagnosis and treatment of such conditions as disorders of sexual differentiation, disorders of adrenocortical function, endocrine tumors, and hypercalcemia.

The Course is approved for Category I credit by the American Academy of General Practice. Tuition is $15.00, which includes the luncheon. For further information address the Department of Postgraduate Instruction, Vanderbilt University School of Medicine.

Physicians Recently Licensed in Tennessee

Marvin H. Cohen, Baltimore, Md.
Ainsworth G. Dudley, New Orleans, La.
Charles E. Wiley, III, Kingsport
Wilbur D. Dabbs, Nashville
Edward G. Edwards, Memphis
George S. Hester, Moscow, Tennessee
Gary L. Kellett, Millington
Freddy M. Massey, Memphis
Joseph A. Pryor, Nashville
Donald L. Wilson, Honolulu, Hawaii
Richard G. Kloss, Crossville
Stanley J. Dressler, Chattanooga
Paul A. Paden, Tacoma, Wash.
Alvin J. Weber, Knoxville
Malcolm S. Floyd, Signal Mountain
Joseph J. Dodds, Signal Mountain
Thomas G. Head, Memphis
William E. Furst, Memphis
Kenneth L. Classen, Nashville
Richard A. Ewing, III, Nashville
Burt F. Taylor, Jr., Franklin
William C. Cartinhour, Jr., Lookout Mountain
James H. Donnell, Memphis
Catherine A. Gilreath, Wilmot, Arkansas
Lois K. Jarred, Memphis
James G. Lawson, Lakeland, Florida
Harold A. McCormack, Memphis
George L. Rosser, Bristol
William L. Wood, Jr., Nashville
Mary E. T. Stroud, Chattanooga
Bernard G. Stall, III, Knoxville
David A. Corey, Knoxville
Mayo Fong Go, Memphis
Robert J. Nelson, Galesburg, Ill.
Elsie V. Tomkinson, Oak Ridge
James G. Dickson, Elizabethton
William J. Gutch, III, Knoxville

Hale-McMillan Lecture

The annual Hale-McMillan Lecture will be held April 15 at 8:00 P.M. in the Public Health Lecture Hall of Meharry Medical College. The lecture will be delivered by Dr. Charles B. Puestow, chief, surgical service, Veterans Administration Hospital, Hines, Illinois. Dr. Puestow's subject will be "Benign Diseases of the Biliary Tract and Pancreas."

Members of the medical profession are invited to attend.

Southwest Allergy Forum

The Southwest Allergy Forum will meet at the Granada Hotel in San Antonio, Texas, April 21-23. Correspondence should be directed to Dr. Boen Swinny, Jr., 2-G Medical Professional Bldg., San Antonio 12, Texas.

American Board of Obstetrics and Gynecology

Applications for certification in the Amercian Board of Obstetrics and Gynecology must be submitted by July 1, and accompanied by current duplicate lists of patient dismissals for the preceding twelve months.

Candidates are urged to carefully review the current Bulletin of the Board which may be obtained by writing to the office of the Executive Secretary. Particular attention should be given to the existing requirements of the Board before application is made.

Diplomates are urged to keep the Board office informed of their current address. Robert L. Faulkner, M.D., Executive Secretary and Treasurer, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

The Physicians Musical Society of America

OBJECTIVE: To perform Classical Symphonic, Chamber and Choral Music under the direction of Leading Conductors, and to promote fellowship among participating physicians and their families.
OPEN TO: Physicians and their immediate family.
TIME AND INSTRUMENTS OR VOCAL RANGE: To be determined by questionnaire.

A group of physicians in Philadelphia has had considerable interest in forming a Doctor's Musical Society. Dr. Eugene Ormandy, Director of the Philadelphia Orchestra, is consultant to the Society.

Write to: *Doctors Musical Society*
c/o Department of Pediatrics
1025 Walnut Street
Philadelphia 7, Pennsylvania

Public Health Defense Course

A 6-day training course in chemical and biological defense is currently being offered once a month at Fort McClellan, Alabama, by the U. S. Public Health Service, Division of Health Mobilization.

The course is conducted in cooperation with the Army Chemical Corps School, Fort McClellan, and is designed to train public health and medical personnel in developing chemical and biological defense programs within states, counties, and principal municipalities.

The course includes detailed instruction in the areas of: public health aspects of chemical and biological warfare; detection, identification, and current capabilities of chemical and biological agents; survey and delineation of contaminated areas; decontamination materials and techniques; first aid and treatment for chemical and biological casualties; care and use of defensive equipment; and psychological aspects of chemical and biological weapons systems.

Directed at civilians, the classes will be of particular value to persons whose responsibilities require knowledge in the medical aspects of civil defense, such as State and local health department personnel, representatives of the Veterans Administration and Public Health Service, and faculty members of affiliated schools in the Medical Education for National Defense Program.

There is no tuition fee nor is security clearance required. Future courses are scheduled to begin March 25, April 22, May 13, and June 17.

Requests for application forms and further information should be addressed to: Deputy Chief, Training Branch, Division of Health Mobilization, Public Health Service, Department of Health, Education, and Welfare, Washington 25, D.C.

AMENDMENTS TO THE CONSTITUTION AND BYLAWS— LYING ON THE TABLE FROM LAST ANNUAL SESSION OF THE HOUSE OF DELEGATES

The following amendments will be acted upon by the House of Delegates on Sunday, April 7th, as this action will be one of the first pieces of business taken up by the House early in the session on April 7.

AMENDMENT TO CONSTITUTION
Name of Association

Amend Article I and Article V of the Constitution by deleting the word "State" from the name of the Association.

Article I
At Present

The name and the title of this organization shall be "The Tennessee *State* Medical Association."

Article I
As Amended

The name and the title of this organization shall be *"The Tennessee Medical Association."*

Article V
At Present

The House of Delegates shall be the legislative and business body of the Association, and shall consist of (1) Delegates elected by the Component Societies; (2) ex-officio the Officers; (3) the five most recent surviving ex-Presidents of the Association, except that all ex-Presidents who were living in April 1956 shall be members for life; (4) the Association's delegates to the American Medical Association, the Commissioner of Public Health, and the Commissioner of Mental Health for the State of Tennessee, provided such Commissioner of Public Health or Mental Health is a member in good standing of the Tennessee *State* Medical Association.

Article V
As Amended

The House of Delegates shall be the legislative and business body of the Association, and shall consist of (1) Delegates elected by the Component Societies; (2) ex-officio the Officers; (3) the five most recent surviving ex-Presidents of the Association, except that all ex-Presidents who were living in April 1956 shall be members for life; (4) the Association's delegate to the American Medical Association, the Commissioner of Public Health, and the Commissioner of Mental Health for the State of Tennessee, provided such Commissioner of Public Health or Mental Health is a member in good standing of the *Tennessee Medical Association.*

THE REFERENCE COMMITTEE RECOMMENDED ADOPTION.

AMENDMENT TO CONSTITUTION
Officers

Amend Article VIII, Section 1 by eliminating the hyphenated words "Secretary-Editor" and substituting the word "Secretary".

Section 1
At Present

The officers of the Association shall be a President, President-Elect, a Vice-President for each of the three grand division of the State, a *Secretary-Editor,* the six elected Trustees, ten Councilors, a Speaker of the House of Delegates, and a Vice-speaker of the House of Delegates.

Section 1
As Amended

The officers of the Association shall be a President, President-Elect, a Vice-President for each of the three grand divisions of the State, a *Secretary,* the six elected Trustees, ten Councilors, a Speaker of the House of Delegates, and a vice-speaker of the House of Delegates.

Amend Article VIII, Section 2, Paragraph 1 by deleting the words, "Secretary-Editor of the Journal" and substituting the word, "Secretary".

Section 2
Paragraph 1
At Present

The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the immediate Past-President, the President-Elect, the *Secretary-Editor of the Journal,* and six members elected by the House of Delegates as hereinafter provided.

Section 2
Paragraph 1
As Amended

The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the immediate Past-President, the President-Elect, the *Secretary,* and six members elected by the House of Delegates as hereinafter provided.

Amend Article VIII, Section 2, Paragraph 3 by deleting the last sentence entirely, changing the period following the preceding sentence to a comma, and adding "and a Treasurer from the six elected as Trustees".

Section 2
Paragraph 3
At Present

The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself. The Board of Trustees will organize by the election of a Chairman. *The Chairman of the Board of Trustees shall be ex-officio Treasurer of the Association.*

Section 2
Paragraph 3
As Amended

The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself. The Board of Trustees will organize by the election of a Chairman, *and a Treasurer from the six elected as Trustees.*

Amend Article VIII, Section 4 by deleting the words "the Secretary-Editor" and substituting the words "a Secretary". Also amend Section 4 by deleting the comman after the phrase "for one year" and inserting a period; by deleting the next word "and" and begin a new sentence with the next word "The". Insert the words "and the Secretary" after "The Speaker of the House" and before "shall hold office for not more than four consecutive years".

Section 4
At Present

The President-Elect, the three Vice-Presidents, *the Secretary-Editor* and the Speaker of the House of Delegates shall be elected annually for one *year, and the* Speaker of the House shall hold office for not more than four consecutive years. The President-Elect shall assume office as President at the expiration of the term of the President.

Section 4
As Amended

The President-Elect, the three Vice-Presidents, *a Secretary* and the Speaker of the House of Delegates shall be elected annually for one *year. The* Speaker of the House *and the Secretary* shall hold office for not more than four consecutive years. The President-Elect shall assume office as President at the expiration of the term of the President.

Amend Article VIII, Section 5 by deleting the period at the end of the sentence after the word Council and adding "without vote."

Section 5
At Present

The President, Secretary and Speaker of the House of Delegates shall be ex-officio members of the *Council.*

Section 5
As Amended

The President, Secretary and Speaker of the House of Delegates shall be ex-officio members of the Council *without vote.*

Amend Article VIII, Section 7 by deleting the comma after the word "Association" and deleting the words "except the Councilors". Also delete the comma following the words "except the Councilors".

Section 7
At Present

All officers of the *Association, except the Councilors,* shall be elected at the second regular session of the House of Delegates, and they shall assume office when elected.

Section 7
As Amended

All officers of the Association shall be elected at the second regular session of the House of Delegates, and they shall assume office when elected.

THE REFERENCE COMMITTEE RECOMMENDED ADOPTION.

AMENDMENT TO CONSTITUTION
The Powers and Duties of the Board of Trustees
Amend Article IX, Section 1, by adding a sentence at the end of Section 1.

Section 1
At Present

The Board of Trustees shall have entire control of the publication, the policy and the editorial and financial management of the Journal of the Association. It shall be authorized and empowered to make all contracts necessary for the conduct of the Journal.

Section 1
As Amended

The Board of Trustees shall have entire control of the publication, the policy and the editorial and financial management of the Journal of the Association. It shall be authorized and empowered to make all contracts necessary for the conduct of the Journal. *It shall appoint the Editor of the Journal.*

Amend Article IX, Section 3, Sentence 1, by deleting the hyphenated word "semi-annual" and inserting the word "quarterly".

Section 3
At Present

The Board of Trustees shall hold *semi-annual* meetings, one of which shall be held on the last day of the Annual Meeting, and such other meetings as the business of the Association may require, subject to the call of the Chairman. The Board of Trustees shall make expenditures of the funds of the Association dependent upon the availability of such funds as determined by the Board of Trustees and as ordered by the House of Delegates. The Board of Trustees shall render at the Annual Session a full and detailed accounting of all receipts and disbursements.

Section 3
As Amended

The Board of Trustees shall hold *quarterly* meetings, one of which shall be held on the last day of the Annual Meeting, and such other meetings as the business of the Association may require, subject to the call of the Chairman. The Board of Trustees shall make expenditures of the funds of the Association dependent upon the availability of such funds as determined by the Board of Trustees and as ordered by the House of Delegates. The Board of Trustees shall render at the Annual Session a full and detailed accounting of all receipts and disbursements.

Amend Article IX, Section 6, Sentence 1, by deleting the words, "except the Chairman; who is ex-officio the Treasurer, whose compensation shall be fixed by the House of Delegates;"

Section 6
At Present

The Board of Trustees shall serve without compensation, *except the Chairman, who is ex-officio the Treasurer, whose compensation shall be fixed by the House of Delegates;* however, their actual expense in attending the meetings of the Board shall be paid out of the funds of the Association. This is not to apply where a meeting is held at the Annual Meeting.

Section 6
As Amended

The Board of Trustees shall serve without compensation, however, their actual expense in attending the meetings of the Board shall be paid out of the funds of the Association. This is not to apply where a meeting is held at the Annual Meeting.

THE REFERENCE COMMITTEE RECOMMENDED ADOPTION.

AMENDMENT TO CONSTITUTION
Officers
Amend Article VIII, Section 8 by deleting the words, "or Vice-President".

ARTICLE VIII
Section 8
At Present

No member who has not been a member in good standing for five years next preceding election, or who is not in attendance at the meeting, shall be eligible for election as President-Elect or *Vice-President.*

ARTICLE VIII
Section 8
As Amended

No member who has not been a member in good standing for five years next preceding election, or who is not in attendance at the meeting, shall be eligible for election as President-Elect.

THE REFERENCE COMMITTEE RECOMMENDED ADOPTION.

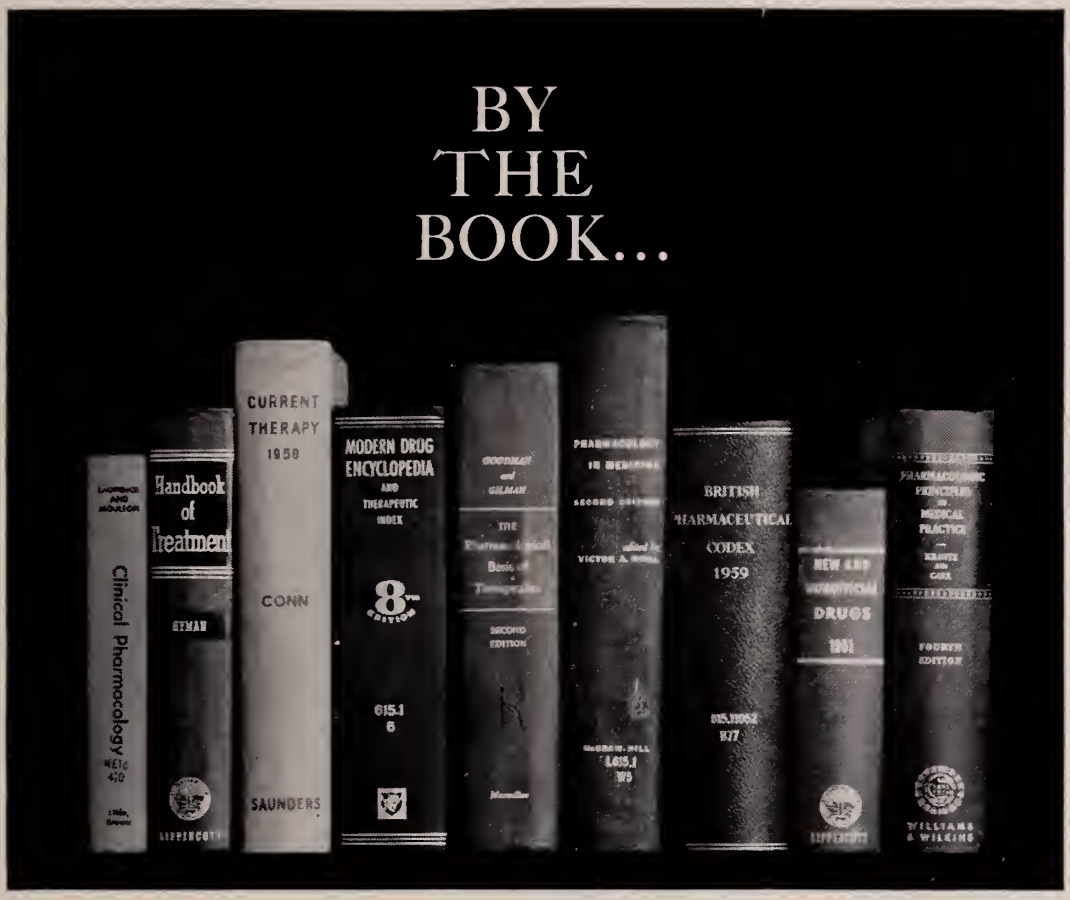
AMENDMENT TO BY-LAWS
House of Delegates

Amend Chapter IV, Section 2 by adding at the end of this section, "No delegate from any chartered component medical society shall be entitled to be seated in the House of Delegates unless the component medical society which he represents has complied with the requirements of the Association by submitting the report to the Councilor of the District in which the component society is located." Section 2 would then read:

"Each component Society shall be entitled to send to the House of Delegates each year one delegate for every fifty active and veteran members and one for every fraction thereof, based upon the number of such members in the component Society in good standing as of December 1 of the year preceding the session of the House. Each component Society holding a charter from the Association, which has made its annual report and paid its assessment as provided in the Constitution and By-Laws, shall be entitled to at least one delegate. No delegate from any chartered component medical society shall be entitled to be seated in the House of Delegates unless the component medical society which he represents has complied with the requirements of the Association by submitting the report to the Councilor of the District in which the component society is located."

THE REFERENCE COMMITTEE RECOMMENDED REJECTION OF BY-LAWS AMENDMENT NO. 5

BRAWNER HOSPITAL, INC.
(Established 1910)
2932 South Atlanta Road, Smyrna, Georgia
FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION
MODERN FACILITIES
Jas. N. Brawner, Jr., M.D.
Medical Director
Aloysius I. Miller, M.D.
Mark A. Gould, M.D.
Phone HEmlock 5-4486



PRO-BANTHĪNE®

brand of propantheline bromide

in { • peptic ulcer • gastritis • biliary dyskinesia
• spastic colon • pylorospasm • functional gastrointestinal disorders

Prompt, positive control of excess gastrointestinal acidity and motility has earned for PRO-BANTHĪNE the widest acceptance as the standard anticholinergic medication.

Authorities in pharmacology and therapeutics recognize the beneficial actions of PRO-BANTHĪNE. Clinicians prescribe it more often than any other drug of its class.

In patients with peptic ulcer or other conditions characterized by hyperfunction of the enteric tract, PRO-BANTHĪNE relieves pain, suppresses excessive secretion and motility, prolongs the neutralizing property of antacids and hastens resolution of the disorder.

The books say "PRO-BANTHĪNE" when anticholinergic medication is indicated.

PRO-BANTHĪNE is supplied in seven forms and combinations for every clinical need.

PRO-BANTHĪNE Tablets of 15 mg.
PRO-BANTHĪNE Ampuls of 30 mg.
PRO-BANTHĪNE P.A.® (Prolonged Acting) Tablets of 30 mg.
PRO-BANTHĪNE *(Half Strength)* Tablets of 7.5 mg.
PRO-BANTHĪNE® *with* DARTAL® Tablets, containing 15 mg. of PRO-BANTHĪNE and 5 mg. of Dartal (brand of thiopropazate dihydrochloride).
PRO-BANTHĪNE *with* PHENOBARBITAL Tablets, containing 15 mg. of PRO-BANTHĪNE and 15 mg. of phenobarbital.
PROBITAL™ Tablets, containing 7.5 mg. of PRO-BANTHĪNE and 15 mg. of phenobarbital.

G. D. SEARLE & CO.
CHICAGO 80, ILLINOIS
Research in the Service of Medicine

Knoxville's Finest Location

From
$5.50 Single
8.50 Double



AAA

HOTEL FARRAGUT

Clinch & Gay Streets

P. J. HEAGERTY
General Manager
Telephone: 522-5161

HEADQUARTERS
FOR
THE WOMEN'S AUXILIARY

Tennessee State Medical Association

April 7-8-9, 1963

- Member Triple A
- 100% Air Conditioned
- All Air Line Ticket Offices
- Free TV and Radios
- Parking Garage
- Convenient to Everything

THIS IS THE COLOR OF PROTECTION



BETADINE—The only germicide whose color indicates a germ-free environment—provides lasting protection and is the most potent non-irritating topical antiseptic known.

for the first time...
a universal microbicidal agent that does not sensitize or retard healing

Betadine®

Povidone-Iodine NND

Kills bacteria, viruses, fungi, yeasts and protozoa on contact. Non-injurious to skin, exposed tissue or mucous membranes.

Products available: Betadine Solution • Betadine Aerosol Spray • Betadine Vaginal Douche • Betadine Vaginal Gel • Betadine Shampoo • Betadine Ointment • Betadine Swab Aids • Betadine Surgical Scrub •

PHYSICIANS PRODUCTS CO., INC.
PETERSBURG, VIRGINIA

SAINT ALBANS
PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

STAFF

James P. King, M.D., Director

Daniel D. Chiles, M.D.
Clinical Director

James K. Morrow, M.D.

Silas R. Beatty, M.D.

William D. Keck, M.D.

Edward W. Gamble, III, M.D

J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.

Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: DAvenport 5-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Phone: CLifford 3-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
B. B. Young, M.D.
Phone: DIckens 6-7691

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 218, Ext. 55 and 56

Trocinate®

Brand of Thiphenamil HCl.

FOR DIVERTICULITIS, MUCUS COLITIS,

IRRITATIVE DIARRHEA, IRRITATIVE URETERITIS,

BLADDER SPASM

*T*rocinate is a musculotropic antispasmodic with no appreciable anticholinergic action. It relieves spasms of the lower bowel and genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma. Each tablet contains 100 mgs. Trocinate HCl.

USUAL DOSAGE: 2 tablets, 4 times a day. Maintenance dosage is frequently lower.

Dispensed in bottles of 40 and 250 tablets.

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

"The first prescription I ever wrote was for 'Empirin' with Codeine...



and it is still my stand-by for pain relief today."

PICTURE THE YOUNG DOCTOR with his first private patient, about thirty-five years ago. This is the moment, after years of study and guidance in classroom and at hospital bedside, when he assumes the full weight of responsibility for the well-being of his patient. He makes his diagnosis. The patient is in considerable pain, and his first concern is to relieve this discomfort. He writes a prescription for a new analgesic, a convenient drug combination that he believes will be of help. This patient (and many others to follow) finds gratifying relief, and the physician continues to rely upon this medication as the years go by.

Could this have been you in the 1920's? That was when 'Empirin' Compound with Codeine first came into general use (although plain 'Empirin' Compound has been well-known since the influenza epidemic of 1918). Satisfaction through the years has prompted doctors everywhere to depend on 'Empirin' with Codeine for relief of most all degrees of pain. For with this well-tolerated, reliable analgesic combination you can be sure of results, and feel secure in the fact that the liability of addiction is negligible.

Please accept our thanks for continuing to place your trust in a product that has been used more widely in medicine each year for the past four decades.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE*

Acetophenetidin, gr. 2½
Acetylsalicylic Acid, gr. 3½
Caffeine, gr. ½

Remember there are now four strengths available...

*Warning—May be habit-forming.
Subject to Federal Narcotic Regulations.

No. 1 — gr. ⅛
No. 2 — gr. ¼
No. 3 — gr. ½
No. 4 — gr. 1

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

WHAT WOULD HAPPEN TO YOUR PRACTICE . . . IF NO PATIENT EVER CAME TO SEE YOU AGAIN?

If you are hospitalized, or disabled, for a long time — the results could be much the same!

PROTECT YOURSELF against "Loss of Time" with the broad new protection available from "The Doctors' Company". Send coupon below TODAY for full information.

PHYSICIANS MUTUAL INSURANCE CO.
formerly
Physicians Casualty and Health Associations
"The Doctors' Company"
Insuring Physicians & Dentists for 60 years.

Physicians Mutual Insurance Company
115 So. 42nd Street
Omaha 31, Nebraska

Please send details on your "Loss of Time" policy.

NAME_____ AGE_____

ADDRESS_____

CITY_____ STATE_____





Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James K. Ward, M.D.
Phones WOrth 1-1151

ß

BIRTCHER MEDICAL ELECTRONICS

CARDIOLOGY / Electrocardiograph · Cardioscope · Heartpacer® · Defibrillator · Mobile Cardiac Monitoring & Resuscitation Center

ELECTROSURGERY / The Blendtone · Hyfrecator® · Electrosectilis®

PHYSICAL THERAPY / Ultrasonics · Shortwave Diathermy · Ultraviolet · Infrared · Muscle Stimulators · Hydrotherapy



All available on The Exclusive Birtcher Lease Plan

The new Birtcher Lease Plan makes it possible for you to have any of the above in your office with all of the benefits of ownership and the savings of leasing.

For details on the Birtcher Lease Plan or sales and service on Birtcher Medical Electronic equipment call:

HOWARD JENNINGS
P.O. Box 9039, Knoxville, Tennessee, 577-4793

Tennessee State Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

Underwritten By

Commercial Insurance Company

Newark, New Jersey



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE-MARK ®



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can 75c
Pt. bottle with dispensing can $2.50
Qt. bottle with dispensing can $4.00
Plus post.

White Surgical Supply Co.
SURGICAL SUPPLIES & ACCESSORIES
515 West Church Ave. Knoxville 7, Tennessee
Telephone 3-1186

Psychiatrists or General Practitioners

Interested in psychiatry. Veterans Administration Hospital, Tuscaloosa, Alabama. Salaries to $14,565. Liberal retirement plan, 30 days vacation with pay, 15 days sick leave per year, health and life insurance programs. Opportunity for physicians interested in regular hours with less demanding duties than private practice. Write, VA. HOSPITAL, TUSCALOOSA, ALABAMA.

Registered Nurses

Challenging Careers in Psychiatric Nursing. Beginning salaries from $4,290 to $6,660, depending upon experience. Excellent fringe benefits. Ideal location in Baltimore-Washington area. Contact Director of Nurses, Crownsville State Hospital, Crownsville, Maryland.



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

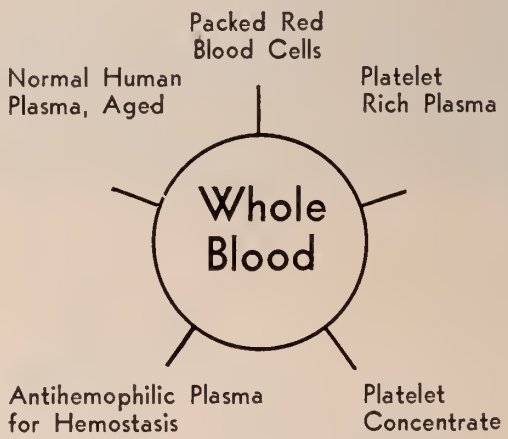
- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN
Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities
KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS and SYMPTOMS:** Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS:** Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT:** Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report.*

those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE STATE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN
1104 Sudekum Bldg.
Nashville, Tenn.

SETH W. SIZER
1211 James Bldg.
Chattanooga, Tenn.

THERON M. LEMLY
1309 Poplar Ave.
Memphis, Tenn.

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

HIGHLAND HOSPITAL, INC.

FOUNDED IN 1904

ASHEVILLE, NORTH CAROLINA

Affiliated with Duke University





A nonprofit psychiatric institution, offering modern diagnostic and treatment procedures—insulin, electroshock, psychotherapy, occupational and recreational therapy—for nervous and mental disorders.
The Hospital is located in a 75-acre park, amid the scenic beauties of the Smoky Mountain Range of Western North Carolina, affording exceptional opportunity for physical and emotional rehabilitation.
The OUT-PATIENT CLINIC offers diagnostic services and therapeutic treatment for selected cases desiring non-resident care.

R. CHARMAN CARROLL, M.D.
Medical Director

ROBERT L. CRAIG, M.D.
Associate Medical Director

JOHN D. PATTON, M.D.
Clinical Director

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE STATE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

TAYLOR ROBINSON INS. AGENCY
JACKSON, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Available to Members Who Qualify

Standard Coverage That

SAVES YOU 36%

Limits	Physicians	Surgeons
NO. X-RAY THERAPY		
5/15	$ 44.80	$107.20
25/75	76.61	183.31
50/150	84.67	202.61
75/225	89.60	214.40
100/300	92.29	220.83
X-RAY—RADIUM OR SHOCK THERAPY		
5/15	89.60	152.00
25/75	153.22	259.92
50/150	169.34	287.28
75/225	179.20	304.00
100/300	184.58	313.12

1. Partnership liability, increase premium for each partner by 20%
2. Obstetricians and Gynecologists take Surgeons rates
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Higher limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability

*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.

PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville 5, Tennessee.

Locations Wanted

A Pediatrician, currently completing active military duty, would like partnership or associate practice in any community of Tennessee of 75,000 or over. Graduate of Bowman Gray School of Medicine; age 29; married; Jewish; two years residency. Available now. LW-445

◆

Internist would like institutional practice in any section of Tennessee, any size. Graduate of St. Louis College of Medicine; age 33; married; Catholic; residency training. Available immediately. LW-448

◆

A 32 year old Board eligible surgeon (general and thoracic), graduate of Tulane Medical School, and presently in Air Force, would like associate or solo practice in any town or city in Tennessee over 40,000. Married; Methodist; available August 1963. LW-456

◆

A general practitioner, now interning, would like clinical or associate practice in East Tennessee town of 2,000 to 25,000 population. Age 28; married; graduate of University of Tennessee School of Medicine. Available upon notice. LW-457

◆

An Internist, Board eligible, graduate of the University of Louvain, and with three years residency, would like clinical, group, institutional, or associate practice in any location in Tennessee in or near a large city. Age 33; married; Jewish. Available now. LW-458

◆

A general Surgeon, graduate of the Tulane Medical School, would like clinical, associate, solo or partnership practice in middle or west Tennessee area with 10,000 to 30,000 population. Age 31; married; Methodist; is a candidate of American College of Surgeons. Available July 1963. LW-469

◆

A native Tennessean would like to return to practice in Tennessee and establish clinical, private or institutional practice in general Psychiatry; any location. Age 45; graduate L.S.U.; married; Protestant. Available upon notice. LW-470

◆

A 27 year old Ob-Gyn, graduate of the University of Tennessee School of Medicine, now in residency training, would like clinical or associate practice in any part of Tennessee with 10,000 population or *less*. Married; Methodist. Available January 1964. LW-471

◆

A general practitioner, with surgery and anesthesia training, graduate of the Medical College of Georgia, would like to establish either solo or associate practice in Tennessee; any size town in any area. Age 43; married; residency training; Presbyterian. Available upon notice. LW-472

An Internist, graduate of the University of Illinois College of Medicine, would like clinical, associate or hospital practice in any section of Tennessee with 25,000 to 100,000 population. Age 34; married; Baptist; completing three years residency. Available September 1963. LW-484

Physicians Wanted

Middle Tennessee community of 8,000 in need of physician for the practice of internal medicine. Two years internship and one year residency preferred. Office space available near hospital. PW-136

◆

Surgeon wanted to assume practice of physician in Middle Tennessee city of over 350,000. Furnished office available in clinic with Ob-Gyn and dentist. PW-171

◆

Furnished office available in clinic located in suburb of Middle Tennessee city of over 350,000 for Internist. Excellent opportunity. PW-172

◆

A general practitioner in Middle Tennessee town of 1,200 (trade area over 8,000) would like an associate, with at least 2 years residency in general surgery, not over 45 years of age. Good schools, near excellent recreational facilities, housing and office space adequate, some office equipment available. PW-175

◆

General practice available in upper-west Tennessee community of over 800; hospital facilities nearby; no other doctor in area; clinic owned by town and leased, completely equipped. Well established practice. Housing available. Any financial arrangement easily worked out. PW-179

◆

Town of 2,200, near large metropolitan area, would like general practitioner to establish practice. No other physician in immediate area. Will build to suit physician. PW-182

◆

FOR SALE: Established partnership practice and spacious, air-conditioned office building for two doctors, in Middle Tennessee town of 10,000. Located near open-staff Hill Burton Hospital. PW-187

◆

FOR SALE: Location and practice (space and equipment), for lease or sale; strictly surgical; excellent practice in South-west city of 40,000, county 65,000. Good opportunity. Leaving for health reasons. PW-191

◆

General practitioner needed in East Tennessee town of over 800; hospital located in town. Office space and equipment available. Associate wanted. PW-192

◆

Opening for radiologist in modern, progressive hospital in Middle Tennessee city of 10,000 plus. Thriving industrial and farming community. Excellent opportunity. PW-193

Revised Plan Increased Benefits For Accident and Sickness Available To Members of The Tennessee State Medical Association

Who Can Qualify for This Insurance

Ordinary Accident Benefit	Total Ordinary Accident and Hospital Benefit
$600.00 Per Month	$1,200.00 Per Month (3 months)

Monthly Benefits are payable from the First Day of Disability and will be paid during your entire lifetime as long as totally disabled from accident.

Sickness Benefit	Total Sickness and Hospital Benefit
$600.00 Per Month	$1,200.00 Per Month (3 months)

Sickness Monthly Benefit ten years certain if totally disabled.

General Provisions

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.00
May be written from $100.00 to $600.00 per month inclusive
Monthly Accident Benefits from First Day
Monthly Sickness Benefits from First Day
May also be issued with elimination periods, if desired
Individually NON-CANCELLABLE EXCEPT for—

- Non-Payment of Premium
- Retired from Practice
- Loss of Membership in The Tennessee State Medical Association

Guaranteed Renewable to age 70 Renewable thereafter at the option of the Company.

Sovereign States Insurance Company

1808 WEST END AVENUE
NASHVILLE, TENNESSEE

For full information without obligation, contact our Home Office, 1808 West End Avenue, Nashville

Professional Department, Sovereign States Insurance Co.

Please send complete information relative to program offered in The Tennessee Medical Journal.

NAME _____ AGE _____

ADDRESS _____ TOWN _____

"A Participating Insurance Company Underwriting the Tennessee Plan"

APPALACHIAN HALL
Established 1916

Asheville North Carolina



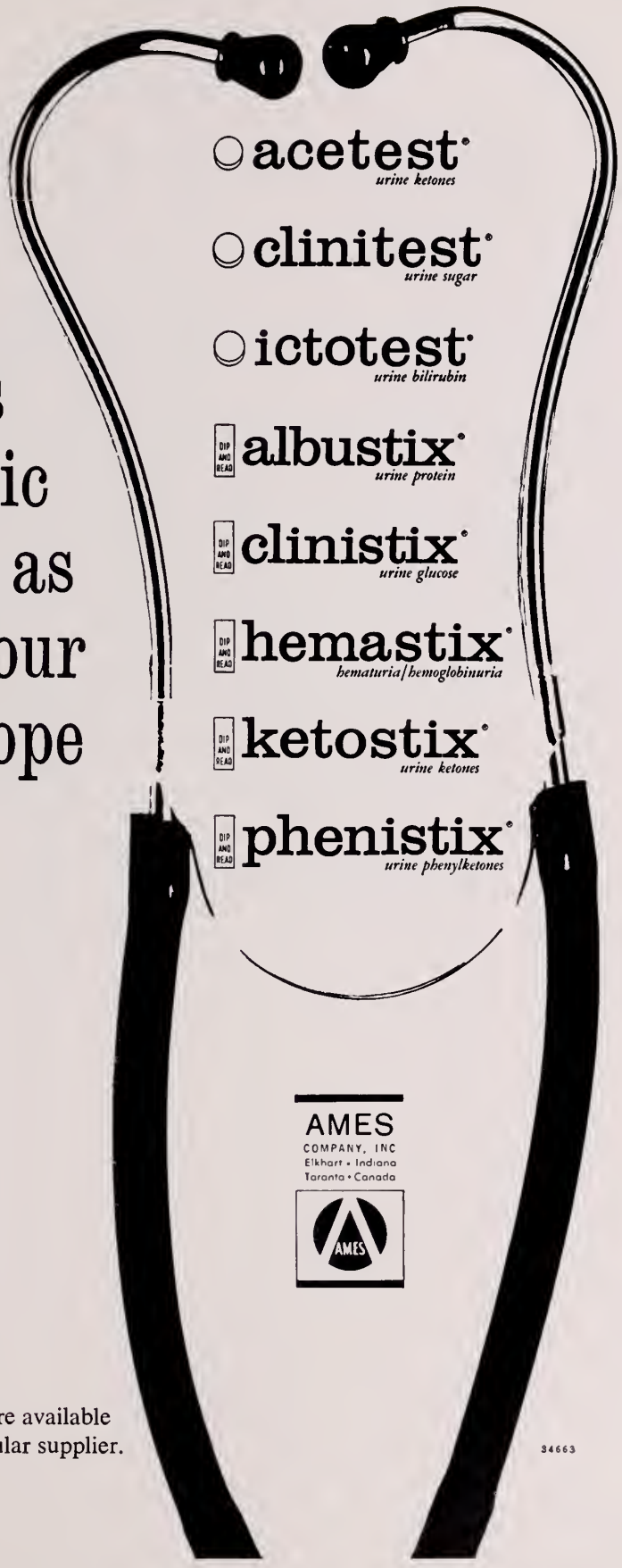
An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D. MARK A. GRIFFIN, SR., M.D.
ROBERT A. GRIFFIN, M.D. MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

Abbott Laboratories	XI, XII	Mayrand, Inc., Pharmaceuticals	X, XXXII
American Cynamid Co.	XV, XXXIV	Mutual Benefit Life Ins. Co.	LI
	XXXV	Nashville Surgical Supply Co., Inc.	XIV
American Tobacco Co.	XXIX	Parke-Davis and Company	II, III
Ames Co., Inc.,	LVII	Pfizer Laboratories	XVI, XVII
Andrew Johnson Hotel	VI	Phillips, Chas. H. Co., The	XXX
Appalachian Hall	LVI	Physicians Mutual Ins. Co.	XLVI
Arnar-Stone Laboratories, Inc.	IX	Povthress, Wm. P. & Co.	XXXVI, XLIII
Birtcher Medical Electronics	XLVII	Psychiatrists Wanted	XLIX
Blood Bank Foundation	L	Registered Nurses Wanted	XLIX
Brawner Hospital, Inc.	Last page reading matter	Robins, A. H. Co., Inc.	XXI
Bravten Pharmaceutical Company	XIII	Roche Laboratories	LVIII
Bristol Laboratories	XVIII, XIX	Roerig	XXII, XXIII
Burroughs Wellcome & Co.	XXIV, XLIV	St. Albans	XLII
City View Sanitarium	XLVI	Sardeau, Inc.	XXVI
Coca-Cola	XLIX	Schering	XXXVII
Endo Laboratories	XXXI	Searle, G. D. & Co.	XXXIX
Farringer & Company	LIII	Smith, Kline & French Laboratories	VIII
First Texas Pharmaceuticals, Inc.	XX	Smith, Reed, Thompson & Ellis Co.	XLVIII
Guild Opticians	LII	Sovereign States Ins. Co.	LV
Highland Hospital, Inc.	LII	Squibb	XXVIII
Hill Crest Sanitarium	XLVII	Tafel Surgical Supply Co., Inc.	XLVI
Hotel Farragut, TSMA	XL	Wallace Laboratories	XXV, XXVII, XXXIII
Kay Surgical, Inc.	L	White Surgical Supply Co.	XLIX
Lily, Eli and Co.	I, XXXVIII	Winthrop Laboratories	V, VII



urine tests as basic as your stethoscope

acetest® *urine ketones*

clinitest® *urine sugar*

ictotest® *urine bilirubin*

DIP AND READ albustix® *urine protein*

DIP AND READ clinistix® *urine glucose*

DIP AND READ hemastix® *hematuria/hemoglobinuria*

DIP AND READ ketostix® *urine ketones*

DIP AND READ phenistix® *urine phenylketones*

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

AMES

AMES products are available through your regular supplier.

34663

specific
for anxiety
& tension

Librium

The singular specificity of Librium in controlling anxiety and tension has proven to be an advantage in a wide range of disorders characterized by anxiety of varying degrees. Notably effective in patients whose symptoms are primarily emotional, Librium is equally valuable when organic disease is aggravated or prolonged by accompanying anxiety. Coupled with its effectiveness is an outstanding record of safety. Librium has few, if any, of the unwanted side effects associated with tranquilizers and daytime sedatives—no extrapyramidal effects, no autonomic blocking, and no dulling of mental alertness. Consult literature and dosage information, available on request, before prescribing.

the successor to the tranquilizers

LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

ROCHE

ROCHE

THE JOURNAL OF THE TENNESSEE ~~STATE~~ MEDICAL ASSOCIATION

APRIL, 1963

Volume 56 Number 4

Table of Contents on Page IV
Index to Advertisers on Page XLVIII

ASTHMA–
A CLASSIC INDICATION FOR
HALDRONE®
(paramethasone acetate, Lilly)

Haldrone produces rapid remission of the symptoms of asthma and controls the patient over extended periods with relative freedom from side-effects. In recommended dosage, Haldrone is unlikely to cause sodium retention and has little or no effect on potassium excretion.

Suggested daily dosage for asthma:
Initial suppressive dose . . 6-12 mg.
Maintenance dose. . . . . 2-6 mg.

Supplied in bottles of 30, 100, and 500 tablets: 1 mg., Yellow (scored), and 2 mg., Orange (scored).

Lilly

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature.
Eli Lilly and Company, Indianapolis 6, Indiana. 240120

in severe respiratory infections
refractory to other measures.

CHLOROMYCETIN

(chloramphenicol, Parke-Davis)

for established
clinical efficacy against
susceptible organisms



In Friedlander's Pneumonia[3,13]

Although the prognosis in Friedlander's pneumonia is poor, treatment with CHLOROMYCETIN has shown a good response when susceptible strains of *Klebsiella pneumoniae* are incriminated.

In *Hemophilus Influenzae* Pneumonia[3,4,13,14]

Because the invading organism is usually sensitive to CHLOROMYCETIN, this agent is generally effective in pneumonias caused by *H. influenzae*.

In Staphylococcal Pneumonia[1-8,13]

CHLOROMYCETIN continues to remain effective against many resistant strains of staphylococci, and—alone or in combination with other antibiotics—should be considered when other antistaphylococcal drugs are ineffective.

In Acute Epiglottitis[4,10,11]

This condition is most often caused by *H. influenzae,* most strains of which are sensitive to CHLOROMYCETIN. Therapy should be instituted at once, since the disease may progress from the first symptoms to a severe respiratory obstruction in four to six hours.

In Pneumonias Due to Gram-negative Bacilli[9]

Because of its broad-spectrum activity, CHLOROMYCETIN is often effective in pneumonias caused by sensitive strains of *Aerobacter, Proteus* of various species, *Paracolobactrum,* and other gram-negative pathogens encountered with increasing frequency in serious respiratory tract infections.

In Staphylococcal Empyema[12]

The infiltrating lesions of staphylococcal empyema are often difficult to eradicate. While CHLOROMYCETIN should only be used when the infection has been resistant to treatment with other antistaphylococcal drugs, therapy with CHLOROMYCETIN, in conjunction with surgical procedures, will often bring favorable results.

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections such as colds, influenza, or viral infections of the throat, or as a prophylactic agent.

Precautions: It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Thacher, H. C., & Fishman, L.: *J. Maine M. A.* **52**:84, 1961. (2) Hopkins, E. W.: *Postgrad. Med.* **29**:451, 1961. (3) Hall, W. H.: *M. Clin. North America* **43**:191, 1959. (4) Krugman, S.: *Pediat. Clin. North America* **8**:1199, 1961. (5) Ede, S.; Davis, G. M., & Holmes, F. H.: *J.A.M.A.* **170**:638, 1959. (6) Wolfsohn, A. W.: *Connecticut Med.* **22**:769, 1958. (7) Calvy, G. L.: *New England J. Med.* **259**:532, 1958. (8) Hendren, W. H., III, & Haggerty, R. J.: *J.A.M.A.* **168**:6, 1958. (9) Cutts, M.: *Rhode Island M. J.* **43**:388, 1960. (10) Berman, W. E., & Holtzman, A. E.: *California Med.* **92**:339, 1960. (11) Vetto, R. R.: *J.A.M.A.* **173**:990, 1960. (12) Sia, C. C. J., & Brainard, S. C.: *Hawaii M. J.* **17**:339, 1958. (13) Rosenthal, I. M.: *GP* **17**:77 (March) 1958. (14) Gaisford, W.: *Brit. M. J.* **1**:230, 1959.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

03863

The Journal of the TENNESSEE STATE MEDICAL ASSOCIATION

Published Monthly

By Tennessee State Medical Association

OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE

Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 4

APRIL, 1963

Per Year, $5.00
Single Copy, 50 Cents

Published Monthly

Contents

Infectious Hepatitis, JOHN DAVIS HUGHES, M.D., Memphis, Tenn. 125

The Recognition of Surgically Correctible Heart Disease, B. C. SINCLAIR-SMITH, Nashville, Tenn. 137

Clinical Notes from the Tennessee Heart Association—*Primary Aldosteronism*, RALPH F. MORTON, M.D., Memphis, Tenn. 146

Clinicopathologic Conference 148

President's Letter 154

Editorial 155

Deaths 156

Programs and News of Medical Societies 156

National News 157

Medical News in Tennessee 158

Personal News 159

Announcements 160

Placement Service 162

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION should be addressed to the Secretary-Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nasbville 4, Tennessee.

Manuscripts must be typewritten on one side of letter-weight paper. Eitber double or triple spacing and wide margins must be provided to facilitate editing which will be legible for tbe printer.

Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to tbe style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine tbe number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
R. H. KAMPMEIER, M.D., Editor
This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein
Copyright, 1963, by the Tennessee State Medical Journal





For dramatic restoration

WINSTROL®

brand of STANOZOLOL

Oral anabolic therapy with the new physiotonic WINSTROL results in the restoration of the patient's positive protein metabolism; confidence, alertness and sense of well-being.

WINSTROL combines highest potency* with outstanding tolerance, stimulates appetite and promotes weight gain... restores a positive metabolic balance. WINSTROL reverses the catabolic effects of concomitant corticosteroid or ACTH therapy. WINSTROL rebuilds body tissue while it builds strength, confidence and a sense of well-being.

Dosage: Usual adult dose, 1 tablet t.i.d. before or with meals; young women, 1 tablet b.i.d.; children from 6 to 12 years, up to 1 tablet t.i.d.; children under 6 years, ½ tablet b.i.d. Available as scored tablets of 2 mg. in bottles of 100. For best results, administer Winstrol with a high protein diet.

Side Effects and Precautions: Prolonged administration can produce mild hirsutism, acne or voice change. In an occasional patient, edema has been observed and in young women the menstrual periods have been milder and shorter. These side effects are reversible. In patients with impaired cardiac and renal function, there is the possibility of sodium and water retention. Liver function tests may reveal an increase in bromsulphalein retention, particularly in elderly patients. In such cases, therapy should be discontinued. Although Winstrol has been used in patients with cancer of the prostate, its mild androgenic activity is considered by some investigators to be a contraindication.

With Winstrol, patients look better ...feel stronger—because they are stronger!

*ANIMAL DATA

Winthrop

Winthrop Laboratories, New York 18, New York ●

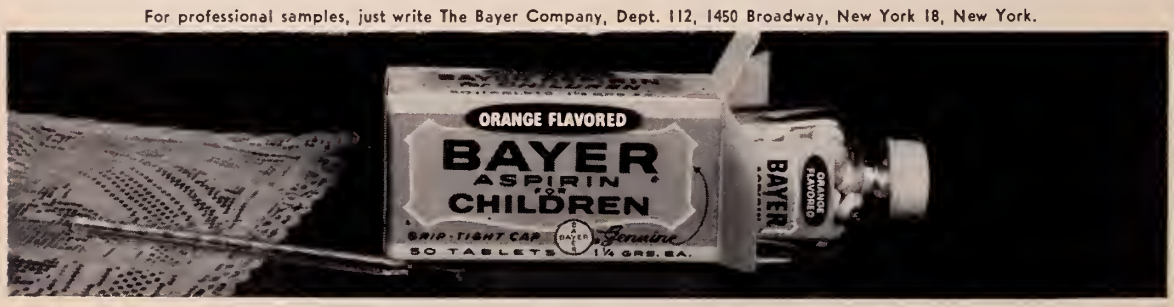


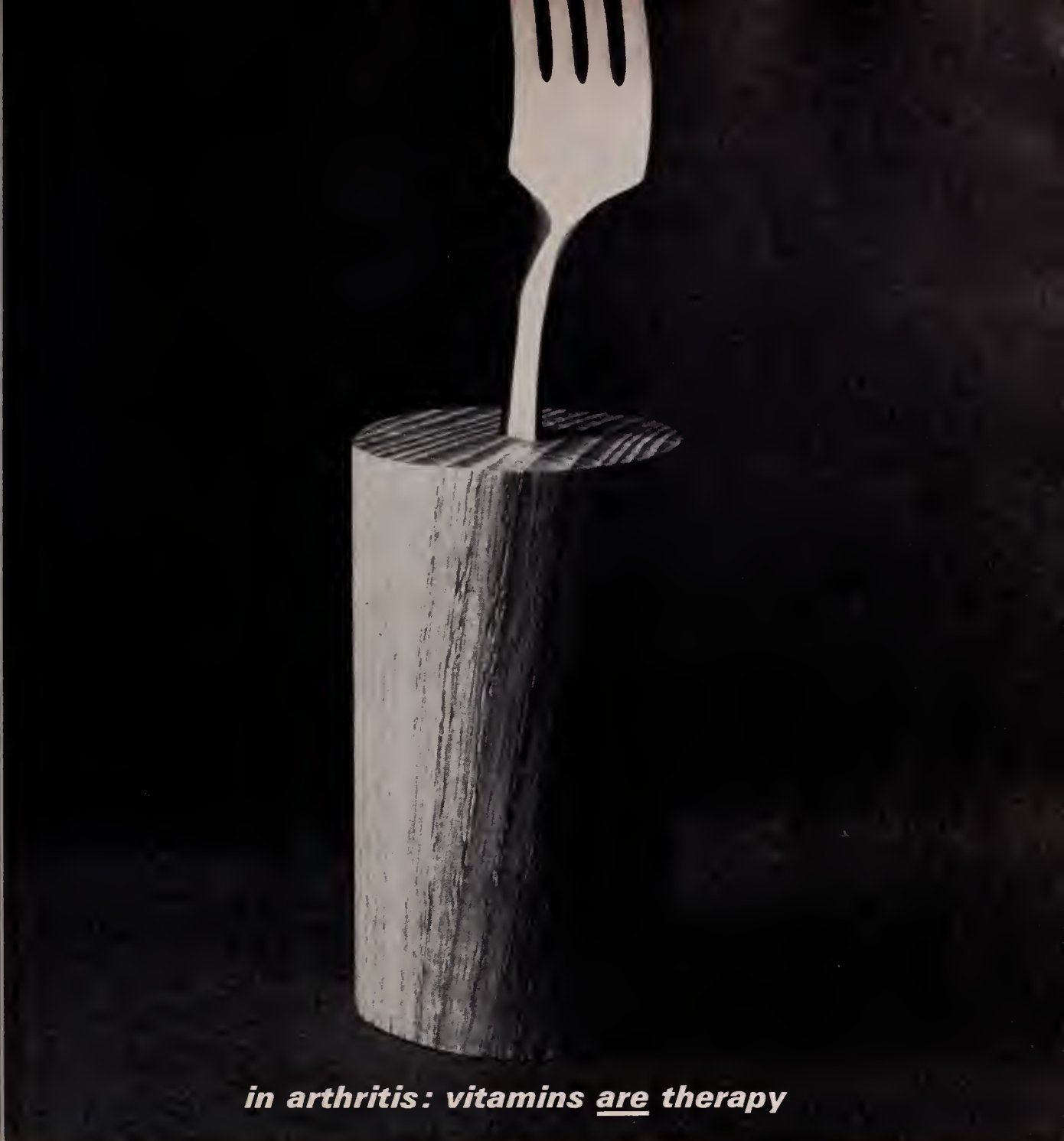
HOW TO BE SURE
your young patients get the aspirin dosage you want them to have

The answer is Orange Flavored Bayer Aspirin for Children

The dosage is 1¼ grains per tablet. Mothers place such confidence in the Bayer name. And the new orange flavor is so fresh and smooth that children take it readily. (The grip-tight cap on the bottle helps keep them from taking it on their own.)

For professional samples, just write The Bayer Company, Dept. 112, 1450 Broadway, New York 18, New York.





in arthritis: vitamins <u>are</u> therapy

In dealing with the chronic stress of arthritis the physician often faces the problem of nutritional imbalance. High potency B and C supplementation is needed for rapid replenishment of tissue stores of these water-soluble vitamins. STRESSCAPS meet this need and help support the natural metabolic defenses in the disease. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins <u>Lederle</u>

Solfoton®

for mild, continuous sedation

Each tablet (or capsule) contains 16 mg. phenobarbital blended with 65 mg. Bensulfoid®. The Bensulfoid is an inert diluent present to permit slow absorption of the phenobarbital. The usual dosage is one tablet or capsule after meals and at bedtime. Solfoton is especially adapted to prolonged use because of its virtual freedom from depression and other side effects. Contra-indications: identical to those of ¼ gr. phenobarbital.

REFER TO PDR

Poythress, White Section, Page 808 (1963 edition) and Product Identification Section

COMPLETE INFORMATION AND CLINICAL SAMPLES SENT UPON REQUEST

Dispensed in bottles of 100 and 500 tablets or capsules

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

MEAN INCREASE OF 80% IN CORONARY BLOOD FLOW*

For your
angina patients
continuous protection
all day,
all night

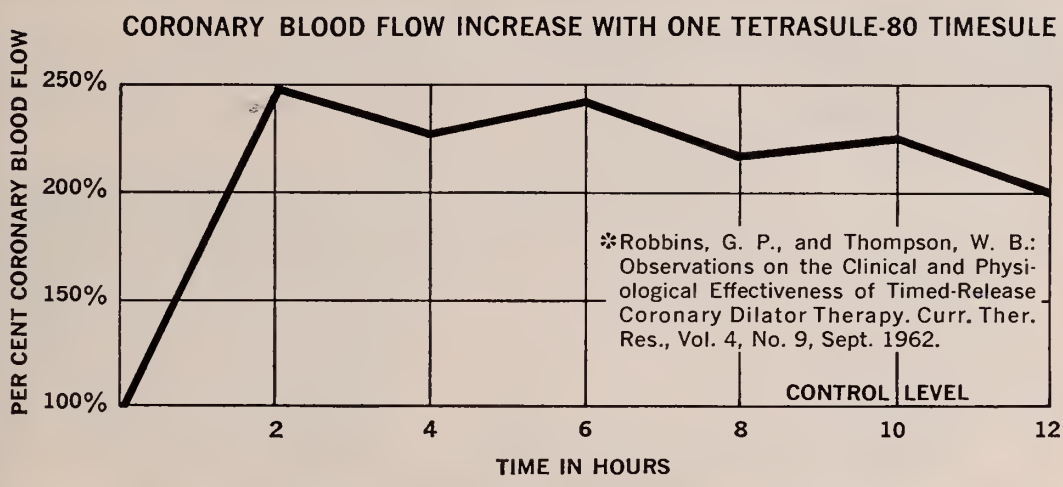


Tetrasule®

Pentaerythritol Tetranitrate, Arnar-Stone

Therapy with TETRASULE TIMESULES®, Timed-release capsules:

dilates coronary arteries → increases coronary blood flow → helps nourish oxygen-deficient myocardium → minimizes frequency of attacks and reduces their severity should they occur → reduces nitroglycerine requirements



With a Tetrasule Timesule, release of PETN is timed-phased over 12 hours and matches PETN need. The pellets are distributed throughout the G-I tract, and release is independent of enzymatic activity or motility. Thus, constant availability of PETN—no peaks or valleys—is assured.

B.i.d. dosage of Tetrasule Timesules provides continuous protection—all day, all night—including the critical early A.M. hours. This 12-hour protection was confirmed by a recent study of Robbins and Thompson , as demonstrated in the above chart.

SUPPLIED: Tetrasule, 30 mg. PETN; Tetrasule-S, 30 mg. PETN and 30 mg. Amobarbital (warning, may be habit-forming); Tetrasule-80, 80 mg. PETN.

CAUTION: Federal law prohibits dispensing without prescription. Use with caution in glaucoma and severe anemia.

For reprints of the above study or a clinical supply write to:

ARNAR-STONE Laboratories, Inc.
STORCK PHARMACEUTICALS DIVISION
Mount Prospect, Illinois

New--from Mayrand

D-CAL-NaF

BASIC SUPPLEMENT

plus FLUORIDE



Here is a phosphorus-free CALCIUM for immediate conversion and rapid assimilation; non-irritating, non-constipating IRON; and **only** those other nutrients needed to meet increased demands during pregnancy—Vitamins D, C and B-6.

Since tooth buds begin to form about the 6th week of pre-natal life, here is FLUORIDE for the future caries control of both mother and child.

Here is D-CAL-NaF — a sensible, moderate-cost formulation. ABOUT FOUR BOTTLES WILL PROTECT MOTHER AND FETUS DURING FULL TERM.

Each tablet Contains:

IN OUTER COATING:
Calcium Carbonate ..... 750 mg.
(Supplies 300 mg. of elemental Calcium)

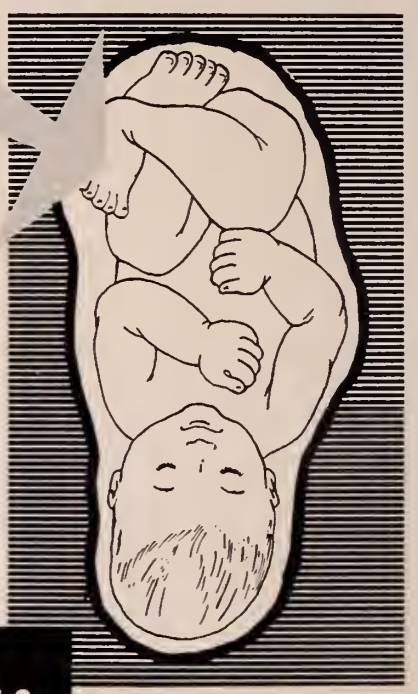
IN INNER CORE:
Iron (As Ferrous Fumarate) ..... 50 mg.
Vitamin D ..... 400 Units
Vitamin C ..... 75 mg.
Vitamin B-6 ..... 5 mg.
Sodium Fluoride ..... 1.1 mg.
(Supplies 0.5 mg. fluoride ion)

CONTRAINDICATED: Where natural or added fluoride in water exceeds 0.7 ppm. except on advice of physician.

SUPPLIED: BOTTLES OF 100 TABLETS —

References:

1. Feltman, R., and Kossel, G.: Prenatal Ingestion of Fluorides and their Transfer to the Fetus. Science 122:560-561 (Sept. 23) 1955.
2. Nutritional Reviews 17:267-268 (Sept.) 1959.
3. Council on Dental Therapeutics "Prescribing Supplements of Dietary Fluorides", J.A.D.A. 56:589-591, April 1958.
4. Hall, E. W., "The Family Doctor and Preventive Dentistry", G.P., XXII:6, December 1960. pp 109-111.



Mayrand, Inc. PHARMACEUTICALS

GREENSBORO, NORTH CAROLINA

SAMPLES AND COMPLETE DOSAGE INFORMATION ON REQUEST.

why let antihistamine drowsiness leave the job half-done?



It makes good sense to start your *active* allergy patients on Dimetane Extentabs. The response of a Dimetane-treated patient is eloquent proof that a *potent* antihistamine doesn't have to be a sedative, too. Most types of allergies respond quickly—most patients become symptom-free *and* stay on the job for Dimetane works with a very low incidence of significant side effects. Indeed, as one double-blind crossover study revealed, *with no greater incidence of sedation than placebo.** Also available as conventional tablets, 4 mg.; Elixir, 2 mg./5 cc.; Injectable, 10 mg./cc. or 100 mg./cc.

*Schiller, I.W. and Lowell, F.C.: New England J. Med. 261:478, 1959. A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

CONTINUOUS ACTION UP TO 10-12 HOURS

Dimetane® Extentabs®

(brompheniramine maleate, 12 mg.)

UNSURPASSED RELIEF OF ALLERGY SYMPTOMS
...WITH NO MORE SEDATION THAN PLACEBO*

in duodenal ulcer therapy



To dramatize the healing of peptic ulcer, our photographer burned a "lesion" into crumpled metal with a blowtorch, then repaired it and photographed the result.

solid results!

This is the kind of response you can expect with Robinul therapy.

Because Robinul's anticholinergic action is so specific, so intense, and so consistent, it provides a favorable internal environment for ulcer healing.

Positive suppression of gastric acid volume. Moeller[1] demonstrated that 2 mg. of Robinul decreases the volume of HCl secreted by 73% within one hour and 85% within two. Epstein[2] described Robinul's "intensive antisecretory action" as "exemplary."

Significant increase in gastric pH. In his studies comparing the effect of anticholinergics on gastric pH, Sun[3] found that the optimum effective dose of Robinul "... produced suppression of gastric acidity to pH 4.5 or higher in all 16 patients examined." Posey[4] reported "an excellent reduction of gastric acidity ... in 12 of 15 patients...."

Desirable antimotility effect. Young and Sun[5] found that although Robinul (given subcutaneously) demonstrated its ability to suppress antral motility, a 2 mg. oral dose "did not affect gastric emptying or intestinal transit time" in six patients with duodenal ulcer.

New freedom from side effects. Robinul has shown that an anticholinergic need not be plagued with a high percentage of side effects. Of 1705 patients in clinical investigations, many of whom were studied on above-normal doses, fewer than 7% experienced side effects of a moderate-to-severe degree, with only 3% requesting discontinuance of the medication.

PRESCRIBING INFORMATION:

Robinul and Robinul-PH have provided good to excellent results in 83.1% of 795 reported cases of peptic ulcer.

SIDE EFFECTS: Dryness of mouth, blurred vision, urinary difficulties, and constipation are seldom troublesome and may generally be controlled by reduction of dosage. Other unwanted effects such as rash have been reported, but only very rarely.

PRECAUTIONS: Administer with care to patients with incipient glaucoma. Contraindicated in acute glaucoma, prostatic hypertrophy, and in presence of urinary bladder neck obstruction or pyloric obstruction or stenosis with significant gastric retention. Robinul-PH is contraindicated in patients sensitive to phenobarbital or with advanced hepatic or renal disease.

REFERENCES: 1. Moeller, H.C.: Ann. New York Acad. Sc. 99:158, Feb. 28, 1962. 2. Epstein, J. H.: Am. J. Gastroent. 37:295, 1962. 3. Sun, D. C. H.: Ann. New York Acad. Sc. 99:153, Feb. 28, 1962. 4. Posey, E. L., Jr.: Am. J. Digest. Dis. 7:863, 1962. 5. Young, R., and Sun, D. C. H.: Ann. New York Acad. Sc. 99:174, Feb. 28, 1962.

PHARMACEUTICAL RESEARCH

A. H. Robins Co., Inc. Richmond 20, Virginia

Robinul®

ANTICHOLINERGIC

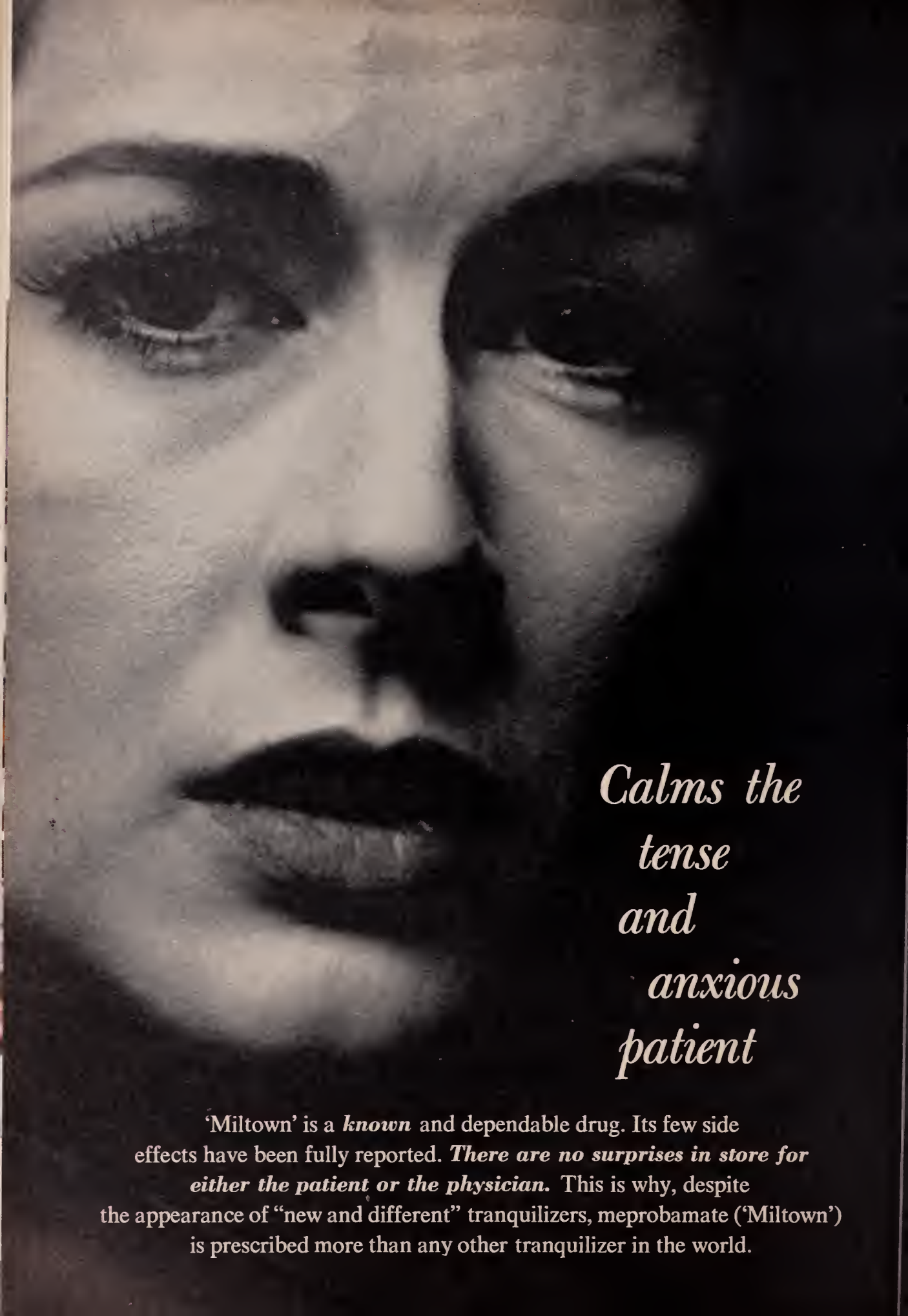
Brand of glycopyrrolate,* 1 mg. per tablet

Robinul®-PH

ANTICHOLINERGIC/SEDATIVE

Glycopyrrolate, 1 mg., and phenobarbital, ¼ gr. per tablet

*U.S. PATENT NUMBER 2,956,062



'Miltown' is a ***known*** and dependable drug. Its few side effects have been fully reported. ***There are no surprises in store for either the patient or the physician.*** This is why, despite the appearance of "new and different" tranquilizers, meprobamate ('Miltown') is prescribed more than any other tranquilizer in the world.

Clinically Proven

in more than 750 published clinical studies
and over seven years of clinical use

Outstanding Record of Effectiveness and Safety

1 Relieves anxiety and anxious depression in a broad spectrum of clinical conditions. Doesn't leave patients "too groggy" to work or think or learn.

2 Relaxes both mind and skeletal muscle. Relieves physical tension as well as emotional stress.

3 Toxicity is low and side effects are few. Does not cause liver damage or Parkinson-like effects.

USUAL DOSAGE: One or two 400 mg. tablets t.i.d.
SUPPLIED: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as **Meprotabs®** —400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as **Meprospan®-400** and **Meprospan®-200** (containing respectively 400 mg. and 200 mg. meprobamate).

Miltown®
meprobamate (Wallace)

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-8684

from soḍoku in India



to pharyngitis in Tennessee

there is a world of experience behind BRAND OF OXYTETRACYCLINE **Terramycin®**

Whether treating sodoku or a host of other infections, physicians throughout the world continue to rely on TERRAMYCIN for its outstanding safety, effectiveness and excellent tolerability. Not a single case of phototoxic reaction, blood dyscrasia or neurologic disturbance directly attributable to TERRAMYCIN has been reported in more than 3,000 clinical papers in the last 12 years. *In your practice, the next infection you see will very likely be "Terra-responsive."*

Sodoku is a synonym for the type of rat-bite fever occurring in the heavily populated Far East. The causative organism is *Spirillum minus,** a flagellated spirochete easily identified in dark-field preparations by its quick, darting motility. Besides the bandicoot,* indigenous to India and Ceylon, other rodents, ferrets and cats spread the disease. During the incubation period, which lasts from five to sixty days, the bite wound* heals, only to become inflamed and edematous with the onset of the acute stage. Fever, malaise, and a characteristic purplish maculopapular rash mark the eruption of the disease. Without treatment, relapses may recur periodically for four to six weeks.

**illustrated*

IN BRIEF The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using. *More detailed professional information available on request.*

Science for the world's well-being~

Pfizer

PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc.
New York 17, New York



but it can help you relieve the suffering of your patient in PAIN . . .

by reducing the anxiety and fear that intensify pain

by potentiating analgesics—enabling you to reduce narcotic dosage by 50 to 75%

and by controlling nausea and vomiting.

'Thorazine' is particularly useful in the severe pain seen in your cancer, surgical, and obstetrical patients. It is available in a wide variety of dosage forms, including injection, Spansule® sustained release capsules, suppositories, syrup and tablets.

For prescribing information, please see *PDR* or SK&F literature.

Thorazine® is not an analgesic
brand of chlorpromazine

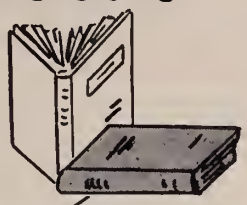
SK&F *Smith Kline & French Laboratories*

Photograph professionally posed.



SAUNDERS BOOKS

Valuable to the Physician



New (2nd) Edition!

Nadas — Pediatric Cardiology

Here is penetrating insight into the differences and peculiarities of diagnosis and treatment of heart disease in children as opposed to adults. Primary emphasis is on effective office management. Topics range from *angiocardiography* to *anesthesia for children with heart disease.* Differential diagnosis of murmurs is extensively covered. For such disorders as acute rheumatic fever, atrial septal defects, etc., you'll find details on: *incidence, anatomy, physiology, pathology, clinical picture, course and prognosis, differential diagnosis,* plus every aspect of *treatment.* For this *New (2nd) Edition* recent refinements in diagnostic techniques are fully covered. Revised criteria for surgical intervention and recently developed surgical techniques are presented. New, improved electrocardiograms are included among the new illustrations.

By Alexander S. Nadas, M.D., F.A.C.P., Assistant Clinical Professor of Pediatrics, Harvard Medical School; Cardiologist. The Children's Hospital; Physician, Sharon Cardiovascular Unit, Children's Medical Center, Boston. About 768 pages, 6⅜″ x 9¾″, with about 529 figures. About $16.00. *New (2nd) Edition—Ready May!*

New (2nd) Edition!

Hinshaw and Garland — Diseases of the Chest

In this fully revised *New (2nd) Edition,* chest diseases are presented concisely and understandably to give you thorough step-by-step details of management. Under each disease the authors discuss: *background, incidence, statistical distribution, diagnosis, symptoms, pathology and classification, radiologic appearance, treatment and prognosis.* Important sections cover topics ranging from *bronchial asthma, bacterial and viral pneumonia, etc., to foreign bodies in the larynx and tracheobronchial tree, and coccidioidomycosis.* In this new edition you'll find a completely new section on *Pulmonary Function* and a marked expansion of the material on *Carcinoma of the Lung.* Many new chest films have been added. Chapters on *bronchitis* and *emphysema* are extensively re-written and expanded. The entire book is up-dated throughout.

By H. Corwin Hinshaw, M.D., Ph.D., D.Sc., Clinical Professor of Medicine; and L. Henry Garland, M.B., B.Ch., M.D., Clinical Professor of Radiology, University of California School of Medicine, San Francisco. About 800 pages, 7″ x 10″, with about 650 illustrations on 312 figures. About $20.00. *New (2nd) Edition—Ready May!*

New (2nd) Edition!

Reed — Counseling in Medical Genetics

This up-to-date *New (2nd) Edition* is packed with specific answers for the questions your patients ask you about heredity. Thousands of physicians profited from the first edition of Dr. Reed's book. He gives you concise facts on the chances of a disease or abnormality being transmitted from parent to child. Almost every chapter is devoted to a common genetic problem.

You'll find lucid advice on the problems of *mental retardation, mongolism, club foot, obesity, convulsive seizures, the schizophrenias, harelip and cleft palate, the central nervous system syndrome, disputed paternity, allergies, genetic effects of radiations, heart diseases, skin color, etc.* Illustrative examples show how the information is used in actual practice. They show types of requests for genetic information which have come to the author from agencies, physicians, parents, etc. The reply given to the questioner and the follow-up information obtained later is included.

Major attention is paid to diseases or abnormalities that appear with a frequency of better than one in 1,000 births. The Appendix lists practically all traits that may be transmitted to children. Dr. Reed gives a reference for each one—usually the most recent authoritative article known to him. You'll find listings of such traits as: *adrenal hyperplasia—Dandy-Walker syndrome—pancreatitis—retinal aplasia—Wilms' tumor—etc.*

Recent advances in the area of medical genetics have required a complete rewriting for this revision. New chapters cover *Cancers, The Chromosome Breakthrough,* and the *Environment.* The wealth of counseling experience available to the author has grown to over 2500 "cases," all handled at the Dight Institute for Human Genetics.

By Sheldon C. Reed, Ph.D., Director, Dight Institute for Human Genetics, The University of Minnesota. 278 pages, 5¾″ x 8″. About $5.50. *New (2nd) Edition—Just Ready!*

To Order Mail Coupon Below!

W. B. SAUNDERS COMPANY
West Washington Square Philadelphia 5

Please send when ready and bill me:

☐ Reed—*Counseling in Medical Genetics*.....About $5.50

☐ Hinshaw & Garland—*Diseases of the Chest*.....About $20.00

☐ Nadas—*Pediatric Cardiology*.....About $16.00

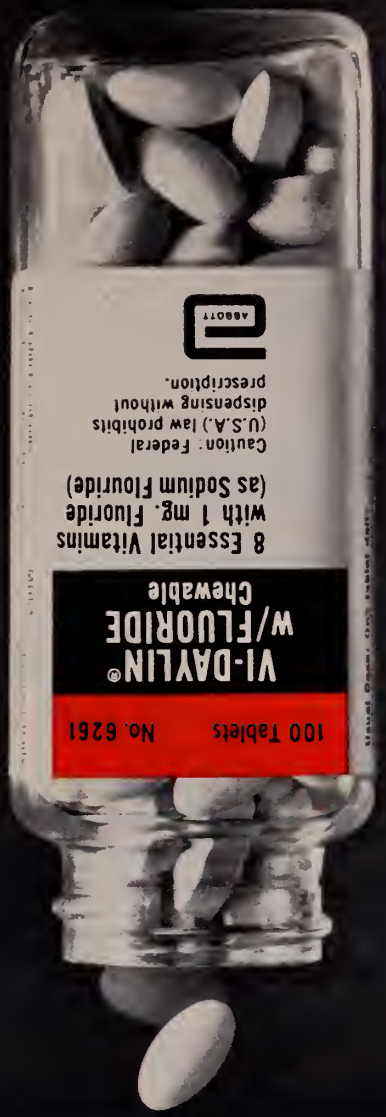
Name.....

Address.....

SJG 4-63



If you don't have fluoride in your water...



...you should know about new Vi-Daylin® w/Fluoride with entrapped flavor

The evidence is in. More than 8,000 published reports verify the effectiveness and safety of fluoride as prophylaxis against dental caries. Yet most communities today are still without water fluoridation.

If you are in such an area, new Vi-Daylin w/Fluoride is an almost ideal means of supplementation for children. For three reasons:

1. Each tablet contains the equivalent of 1 mg. fluoride. This is the amount suggested for children three and over by the American Dental Association.*[1,2]

2. As in regular Vi-Daylin Chewable, your patient gets the benefit of *entrapped flavor*. This ingenious, double-coating process permits complete entrapment of raw vitamin tastes and odors—and keeps delicate flavoring oils fresh until the moment of use. Result: A tablet that tastes like citrus candy.

3. Sweetened with sugar-free Sucaryl®. Because Sucaryl is non-nutritive, it will not react with bacteria to form acids in the mouth.

Cost? No more than regular Vi-Daylin Chewable in economical bottles of 100.

75TH ANNIVERSARY ABBOTT

1. Prescribing Supplements of Dietary Fluorides, Council of Dental Therapeutics, J.A.D.A., 56:591, April, 1958.
2. Fluoride Compounds, Accepted Dental Remedies, 27th Ed.:139, 1962.

VI-DAYLIN w/FLUORIDE—Multivitamins with Fluoride. SUCARYL—Abbott's Non-Caloric Sweetener.

*In areas where drinking water is substantially devoid of fluoride.

304213

In intestinal "grippe"

prompt 4 way check of diarrhea

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis



POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*

Sulfaguanidine U.S.P.	2 Gm.
Pectin N.F.	225 mg.
Kaolin	3 Gm.
Opium tincture U.S.P.	0.08 cc.
(equivalent to 2 cc. paregoric)	

DOSAGE: **Adults:** Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

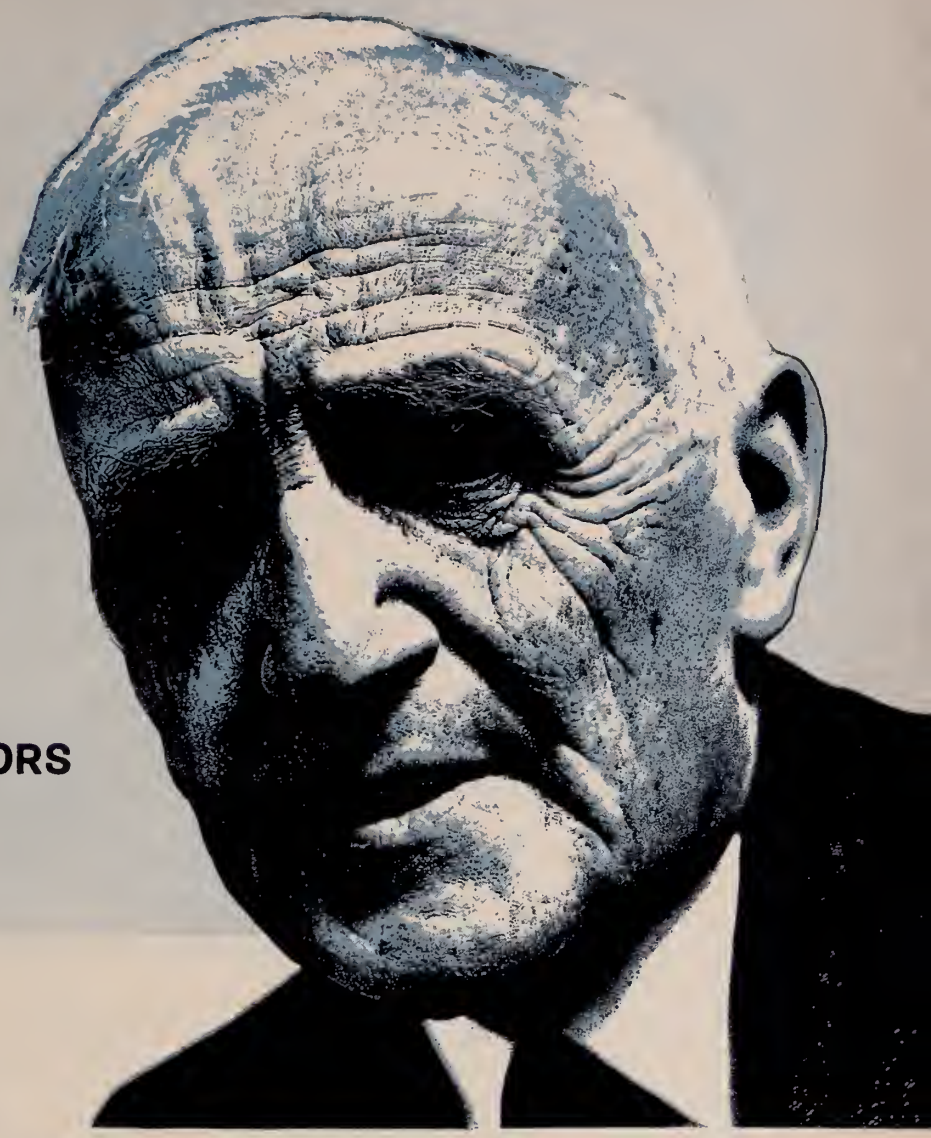
SUPPLIED: *Bottles of 16 fl. oz. (raspberry flavor, pink color)*
Exempt Narcotic. Available on Prescription Only.

Winthrop LABORATORIES
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.



For your elderly arthritic patients



AN EFFECTIVE GERIATRIC ANTIARTHRITIC WITH ESSENTIAL SAFETY FACTORS

safely indicated – even in the presence of **HYPERGLYCEMIA**

PABALATE-SF may be prescribed with confidence to elderly arthritics—even in the presence of hyperglycemia—because of its widely recognized **Safety Factors:** (1) its potassium salts cannot contribute to sodium retention; (2) its enteric coating assures gastric tolerance; and (3) its use is free from the serious reactions in diabetic patients sometimes noted during therapy with steroids or pyrazolone derivatives. As for effectiveness, it has been found "superior to aspirin in the treatment of chronic rheumatic disorders."[1]

Each persian-rose enteric-coated tablet contains: potassium salicylate, 0.3 Gm.; potassium para-aminobenzoate, 0.3 Gm.; ascorbic acid, 50 mg.

1. Ford, R. A., and Blanchard, K. P.: J.-Lancet 78:185, 1958.

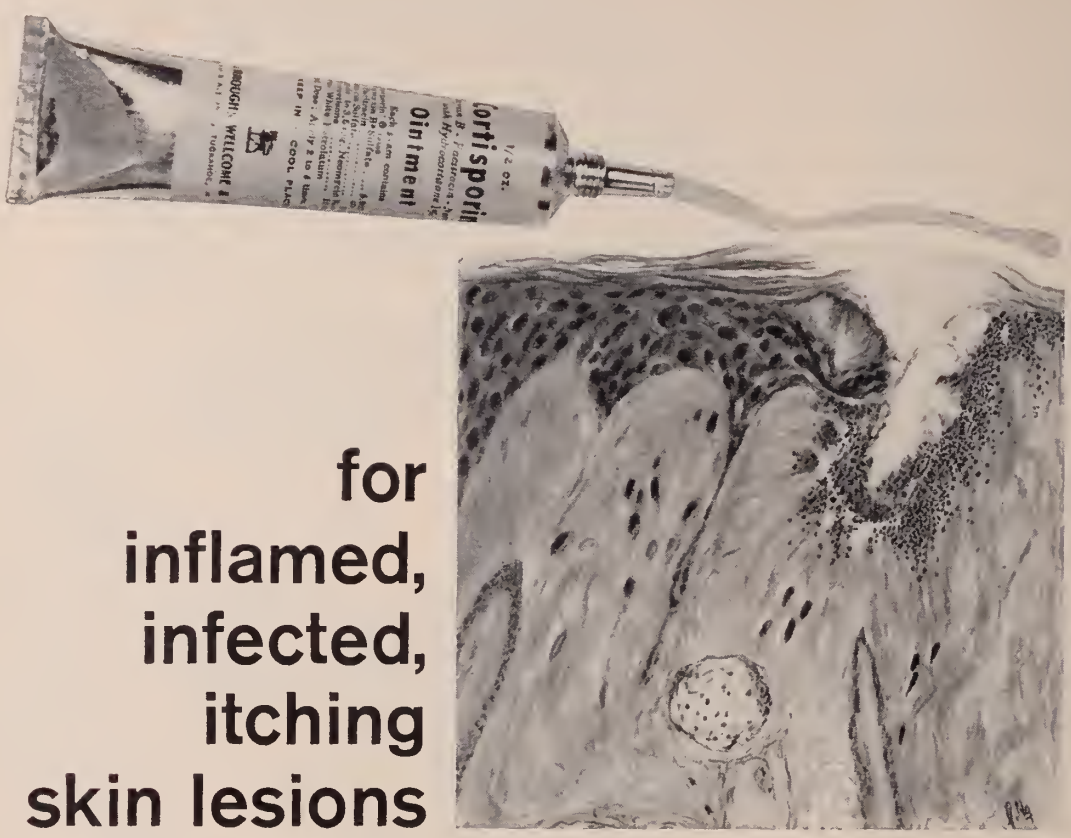
Precaution: Occasionally, mild salicylism may occur, but this responds readily to dosage adjustment. In the presence of severe renal impairment, care should be taken to avoid accumulation of salicylate and PABA. Supply: Bottles of 100 and 500 enteric-coated tablets.

Pabalate®-SF

Robins

(the new, convenient way to prescribe Pabalate-Sodium Free)

A. H. ROBINS COMPANY, INC., RICHMOND, VIRGINIA



for inflamed, infected, itching skin lesions

'CORTISPORIN'® brand OINTMENT

anti-inflammatory / bactericidal / antipruritic

- relieves pain and itching
- reduces inflammation and edema
- provides bactericidal action against most gram-positive and gram-negative organisms, including **Pseudomonas aeruginosa**
- rarely sensitizes

General Indications: Wherever inflammation or infection occurs and is accessible for topical therapy, as in burns, wounds, skin grafts; and plastic, proctologic, gynecologic, or general surgical procedures.

Dermatologic Indications: Atopic, contact, stasis, infectious eczematoid, and lichenoid dermatitis; neurodermatitis, eczema, pyoderma; anogenital pruritus; primary dermatoses with or without secondary infection; external otitis.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms.

Available: In tubes of ½ oz. with applicator tip and ⅛ oz. with ophthalmic tip. Although the ⅛ oz. tube is intended for ophthalmic use, it may be used topically.

Each gram contains:

'Aerosporin'® brand Polymyxin B* Sulfate	5,000 Units
Zinc Bacitracin	400 Units
Neomycin Sulfate (equivalent to 3.5 mg. Neomycin Base)	5 mg.
Hydrocortisone	10 mg. (1%)
Special White Petrolatum	q.s.

*U.S. PAT. NOS. 2,565,057 AND 2,695,261

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.



Put your low-back patient back on the payroll

Soma relieves stiffness –stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days. (J.A. M.A. Vol. 172, No. 18, April 30, 1960.)*

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey



GLYNAPHYLLIN

A bronchial relaxant preparation designed for the treatment and prophylactic management of bronchial asthma, asthmatic bronchitis and other bronchial diseases including chronic pulmonary emphysema in which spasm of the bronchial smooth muscle may play a role.

COMPOSITION:
Each Tablet contains:

Aminophyllin	3 grains
Phenobarbital	1/4 grain
Ephedrine Sulfate	3/8 grain

ADMINISTRATION AND DOSAGE:
For the prophylactic management of the asthmatic, 1 tablet every 6 or 8 hours may suffice, although the physician may employ larger doses for this purpose. In acute attacks of bronchial asthma, GLYNAPHYLLIN may be considered an adjunct to other forms of treatment and dosage must be adjusted to the individual patient.

CONTRAINDICATIONS:
GLYNAPHYLLIN should not be administered to patients who suffer from associated gastro-intestinal disease which may be aggravated by nausea and vomiting. The preparation is contraindicated also in hypertension and other cardiovascular diseases in which ephedrine is undesirable. Because of its phenobarbital content, GLYNAPHYLLIN can be habit forming and is contraindicated in patients in whom drowsiness is a significant disadvantage.

HOW SUPPLIED:
In bottles of 100, 500 and 1,000 tablets.

GLYNAPHYLLIN
is another "Established Need" product

FTP **First Texas** *Pharmaceuticals, Inc.*
DALLAS • SINCE 1901 • ATLANTA

throughout the wide middle range of pain—control with one analgesic* PERCODAN® *tablets

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC)

In a comprehensive range of indications marked by moderate to moderately severe pain, PERCODAN *assures speed, duration, and depth of analgesia by the oral route...acts within 5 to 15 minutes...usually provides uninterrupted relief for 6 hours or longer with just 1 tablet...rarely causes constipation.*



Formula—Each scored yellow PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl (Warning: May be habit-forming), 0.38 dihydrohydroxycodeinone terephthalate (Warning: May be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine. **Also available:** PERCODAN®-DEMI, containing the complete PERCODAN formula but with only half the amount of salts of dihydrohydroxycodeinone and homatropine. Both products are on oral Rx in all states where laws permit. **Average Adult Dose**—1 tablet every 6 hours. **Side Effects and Contraindications**—Although generally well tolerated, PERCODAN may cause nausea, emesis, or constipation in some patients. PERCODAN should be used with caution in patients with known idiosyncrasies to acetylsalicylic acid or acetophenetidin and in those with blood dyscrasias. *Literature on request.* **ENDO LABORATORIES** Richmond Hill 18, New York

Endo®

*U.S. Pats. 2,628,185 and 2,907,768

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE STATE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Available to Members Who Qualify

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY		
Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
25/75	76.61	183.31
50/150	84.67	202.61
75/225	89.60	214.40
100/300	92.29	220.83
X-RAY—RADIUM OR SHOCK THERAPY		
5/15	89.60	152.00
25/75	153.22	259.92
50/150	169.34	287.28
75/225	179.20	304.00
100/300	184.58	313.12

1. Partnership liability, increase premium for each partner by 20%
2. Obstetricians and Gynecologists take Surgeons rates
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Higher limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability

*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.

PAPAIN IS THE KEY

to complete, thorough vaginal cleansing

Meta Cine®

mucolytic, acidifying, physiologic vaginal douche



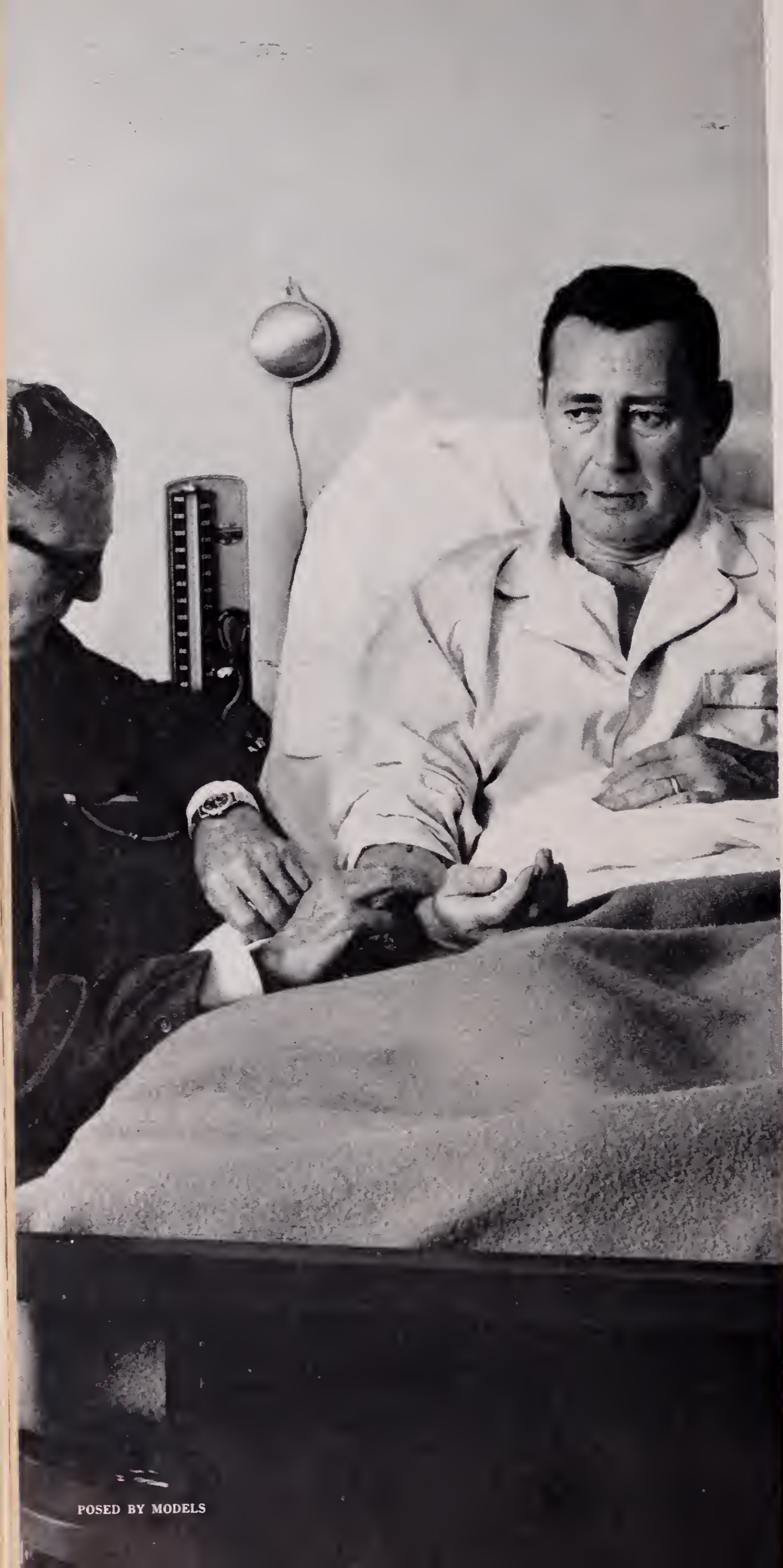
The papain content of Meta Cine is the key reason why it effects such complete cleansing of the vaginal vault. Papain is a *natural* digestant, and is capable of rendering soluble from 200-300 times its weight of coagulated egg albumin. In the vagina, papain serves to dissolve mucus plugs and coagulum.

Meta Cine also contains lactose—to promote growth of desirable Doderlein bacilli—and methyl salicylate, eucalyptol, menthol and chlorothymol, to stimulate both circulation and normal protective vaginal secretions. Meta Cine's pleasant, deodorizing, *non-medicinal* fragrance will meet your patients' esthetic demands.

Supplied in 4 oz. and 8 oz. containers, and in boxes of 30 individual-dose packets. Dosage: 2 teaspoonfuls, or contents of 1 packet, in 2 quarts of warm water.

BRAYTEN

BRAYTEN PHARMACEUTICAL COMPANY *Chattanooga 9, Tennessee*



POSED BY MODELS

Io



all things considered

in bronchitis—Considering the pattern of mixed bacteria, localized or diffuse involvement, potential underlying disease, and the need to allay symptoms and ease respiratory/cardiac function... physicians often include DECLOMYCIN demethylchlortetracycline in the course of therapy.

DECLOMYCIN produces activity levels higher than those of other tetracyclines... at lower dosage... and maintains them during the entire course of treatment without significant fluctuation.

This activity is prolonged 24 to 48 hours after the last dose, helping to protect against relapse.

Over the wide range of everyday infections—respiratory, urinary and most others—in the young and the aged—the acutely or chronically afflicted—DECLOMYCIN provides the "extra dimension" in broad spectrum control.

the decision is for

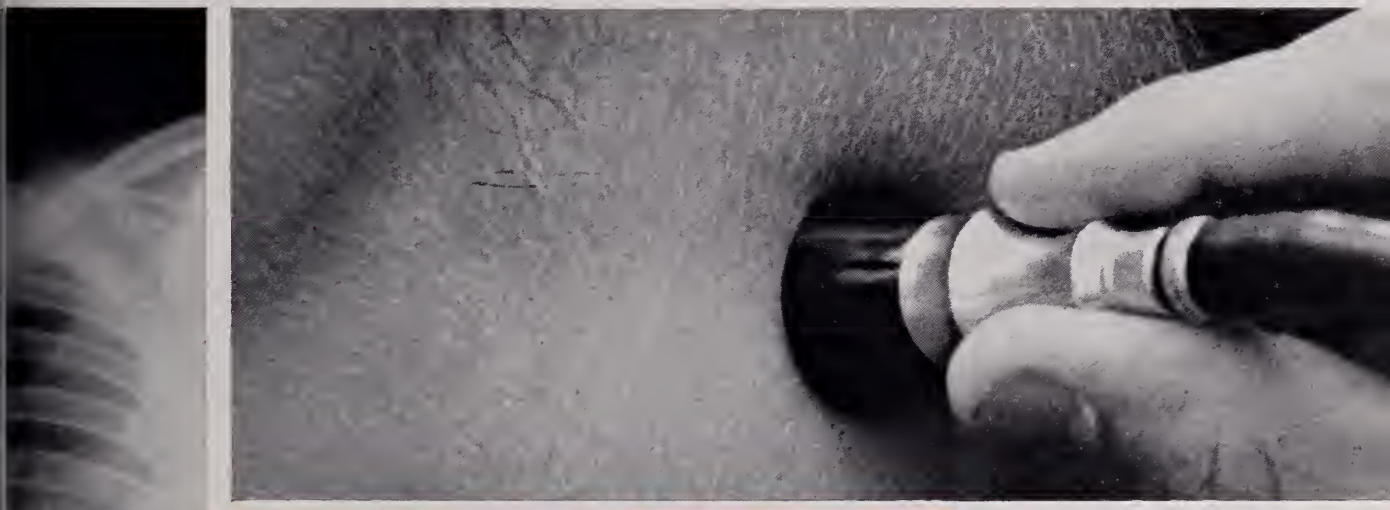
For *adults: Capsules*, 150 mg. and 75 mg. For *children:* cherry-flavored *Pediatric Drops*, 60 mg./cc., and cherry-flavored *Syrup*, 75 mg./5 cc. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

DECLOMYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY • Pearl River, N. Y.

Lederle







Lifts depression.



"I feel like my old self again!" Thanks to your balanced Deprol therapy, her depression has lifted and her mood has brightened up – while her anxiety and tension have been calmed down. She sleeps better, eats better, and normal drive and interest have replaced her emotional fatigue.

as it calms anxiety

Brightens mood...relaxes tension

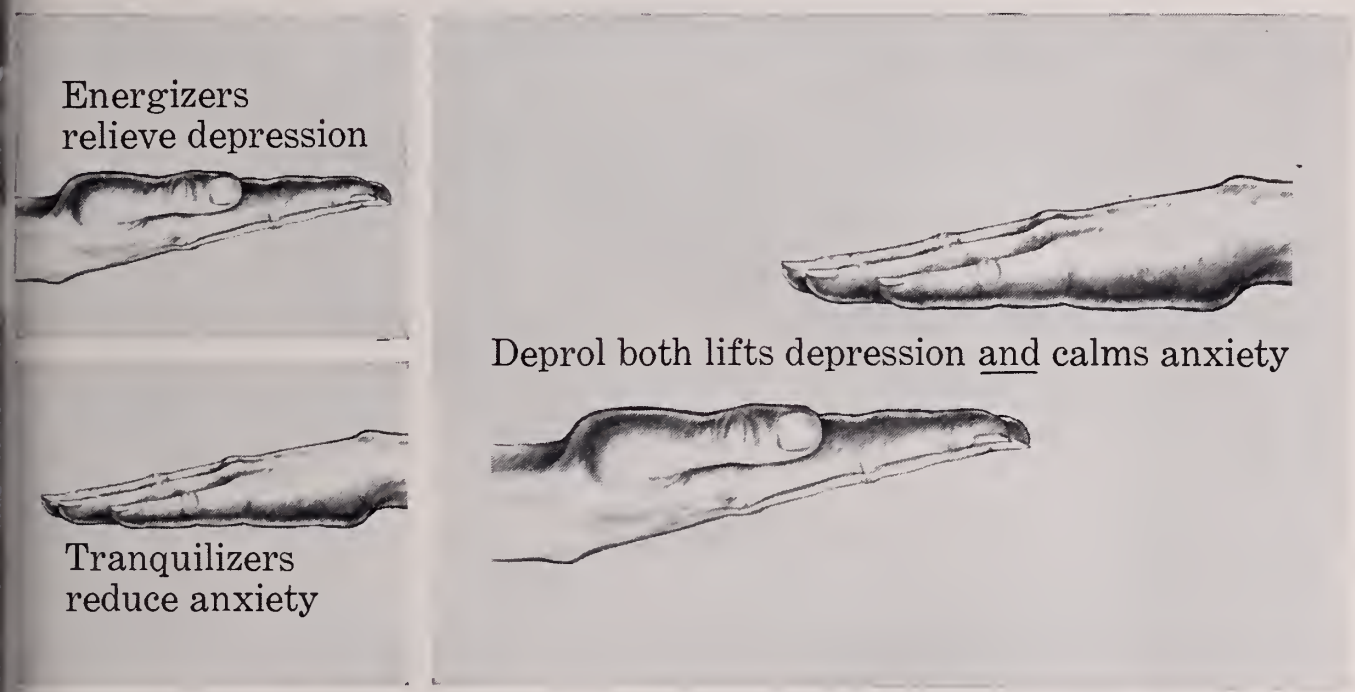
While energizers may stimulate the patient when she is depressed—*they often aggravate her anxiety, tension and insomnia.*

And although tranquilizers may help the patient when she is tense and anxious—*they often deepen her depression and emotional fatigue.*

These "seesaw" effects are avoided with Deprol. It lifts depression as it calms anxiety—a balanced action that brightens the mood, relaxes tension, and relieves insomnia, anorexia and emotional fatigue.

Exceptionally well tolerated. In four years of clinical use no liver toxicity, hypotension, psychotic reactions or changes in sexual function have been reported with Deprol.

Compatible with therapy for physical diseases. Deprol does not complicate specific therapies for cardiovascular, G.I. and upper respiratory conditions.



Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets. Write for literature and samples.

▲Deprol▲®

WALLACE LABORATORIES / *Cranbury, N. J.*

CD-7395

SAINT ALBANS

PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

STAFF

James P. King, M.D., Director

Daniel D. Chiles, M.D.
Clinical Director

James K. Morrow, M.D.

Silas R. Beatty, M.D.

William D. Keck, M.D.

Edward W. Gamble, III, M.D

J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.

Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: DAvenport 5-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Phone: CLifford 3-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
B. B. Young, M.D.
Phone: DIckens 6-7691

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 218, Ext. 55 and 56

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply & Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS and SYMPTOMS:** Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS:** Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT:** Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE STATE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN	SETH W. SIZER	THERON M. LEMLY
1104 Sudekum Bldg.	1211 James Bldg.	1309 Poplar Ave.
Nashville, Tenn.	Chattanooga, Tenn.	Memphis, Tenn.

advancing or complicated hypertension responds to

new Naquival®

brand of trichlormethiazide and reserpine

with STEP-BY-STEP reduction (no sudden drops[1-4]) of elevated blood pressure ☐ relief of associated headache,[3,4] dizziness,[2-4] edema,[2-5] anxiety and tension[1] ☐ simplified dosage (twice daily)...long-term economy

(With new NAQUIVAL there are no reported toxic effects,[2-5] side effects are minor and infrequent,[1-5] and salt restriction[1,5] or added potassium[1] is rarely needed.)

Supplied: NAQUIVAL Tablets, containing 4 mg. trichlormethiazide and 0.1 mg. reserpine, bottles of 100.

References: (1) Ernst, E. M.: Current Therap. Res. **3**:167, 1961. (2) Starling, R. J.: J.M.A. Georgia **50**:442, 1961. (3) Sprogis, G. R.: Current Therap. Res. **3**:393, 1961. (4) Coffee, H. L.: Clin. Med. **69**:1561, 1962. (5) Mattey, W. E.: Indust. Med. **31**:33, 1962.

Schering

mild or moderate hypertension responds to

Naqua®

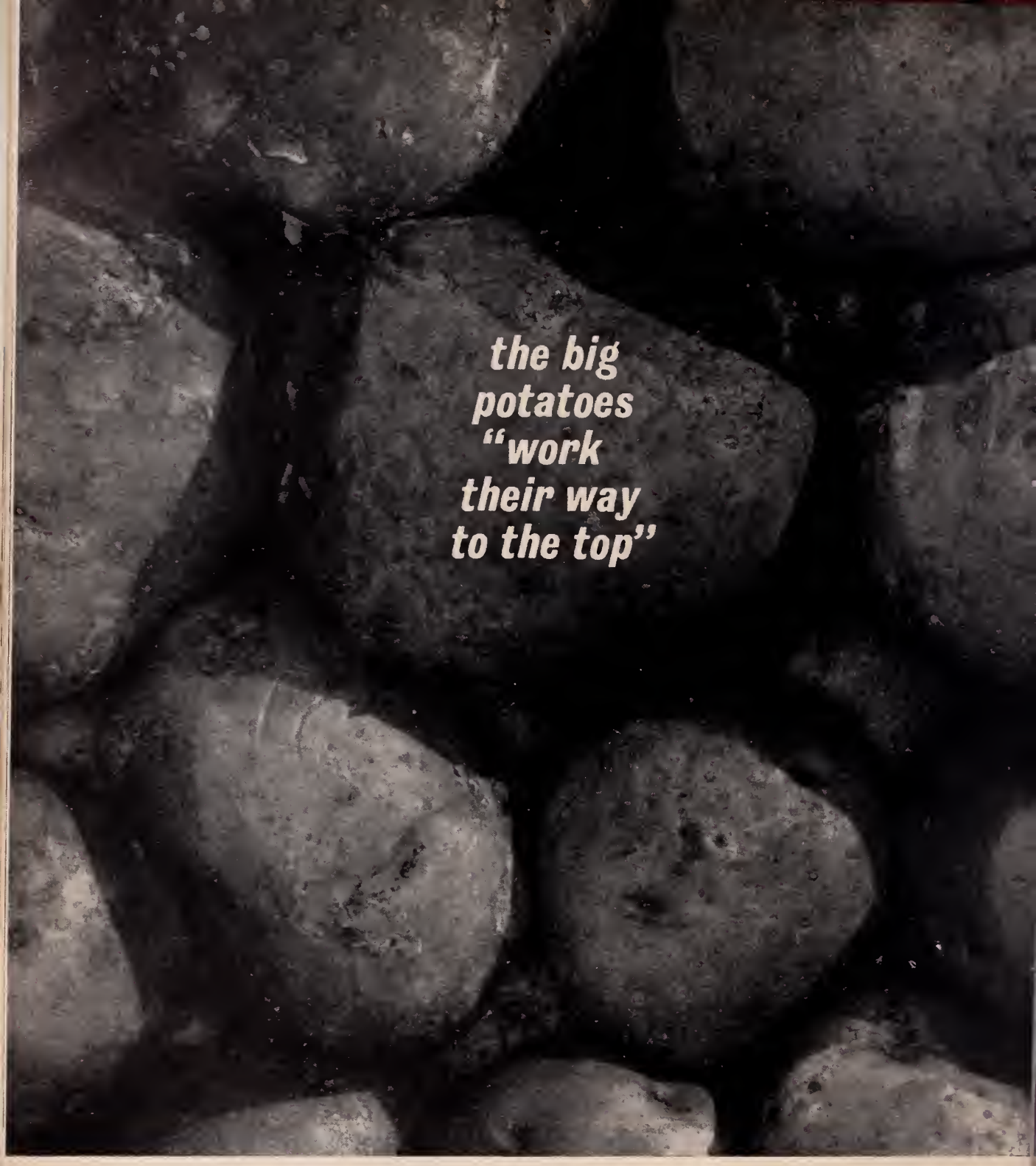
brand of trichlormethiazide

Reduces elevated blood pressure while providing symptomatic relief...permits more normal activities...liberalizes salt intake...in severe hypertension, potentiates other antihypertensives...as a diuretic, controls edema with minimal, once-daily dosage.

Supplied: NAQUA Tablets, 2 and 4 mg., scored, bottles of 100 and 1000.

For complete details concerning NAQUIVAL and NAQUA, consult Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J.

S-160



Jostle a peck of potatoes long enough and the little ones will fall to the bottom; the big ones work their way to the top. So do the larger particles of an admixture of powdered chemicals. Unless steps are taken to keep particle sizes uniform, the active ingredients will not be evenly dispersed throughout an excipient. That is why Lilly pharmaceutical chemists establish precise specifications; maintain rigid controls. A few more steps are added and the cost is slightly increased, but priceless uniformity is assured in the finished product.

Eli Lilly and Company • *Indianapolis 6, Indiana, U. S. A.*

Lilly

190024

Journal of the Tennessee State Medical Association
OWNED AND PUBLISHED BY THE ASSOCIATION
Volume 56 APRIL, 1963 No. 5

Infectious Hepatitis*

JOHN DAVIS HUGHES, M.D.,† Memphis, Tenn.

This disease is one of the country's major health problems, and should enter the doctor's thinking with every blood transfusion he orders. The author has given us an excellent review of what is known today of this disease.

In the past two decades greater advances have been made in the clarification of infectious hepatitis than in all the years previously. From a poorly understood entity, referred to usually as acute catarrhal jaundice at the outbreak of World War II, it has emerged as one of the most common serious viral infections of man, with an imposing morbidity and a fluctuating mortality rate. In 1961, there were over 72,000 recognized cases of this disease in the United States with almost 1,000 deaths, ranking it second only to influenza among dangerous acute viral infections. There is every reason to think that far more cases remained undiagnosed, and the true incidence of this widespread disease in our population remains to be ascertained.

Wartime studies[1,2] quickly clarified many basic features of infectious hepatitis, its epidemiology,[3] pathology,[4] clinical[5] and laboratory[6] diagnosis, and methods of treatment.[7] Since then a vast literature on this subject has been accumulated and it has become abundantly clear that this disease is caused by a virus or group of viruses the exact number of which has not yet been settled.[8,9]

* Read before the Knoxville Academy of Medicine and The Tennessee Valley Academy of General Practice November 15, 1962 Lederle Symposium on Infectious Diseases.

† From the Department of Medicine of the University of Tennessee College of Medicine, Memphis, Tenn.

Etiology

The agent of this disease is an unusually hardy enteric virus spread by the intestinal-oral route either by close personal contact or indirectly by contamination of food or water by carriers of the virus, who may be either symptomatic or asymptomatic. There is no sound evidence to support the theory that it may also be spread by droplet infection from the respiratory tract. Recently chimpanzee handlers have contracted the disease, which brings up the probability of animal hosts, at least primates.[10]

The fact that this disease can be transmitted by raw clams and raw oysters brings up serious questions concerning the safety of ingesting raw shell fish. It is well known that serum hepatitis can be transmitted by blood transfusions, especially by multiple transfusions which arithmetically increase the chances of the recipient contracting the disease since the multiplicity of donors increases the chances of at least one of them being a carrier of the SH virus.

A vast literature has accumulated about the subject of plasma transmitted hepatitis and it is clear that the greater the number of donors to a pool of plasma, the greater the risk of that pool being contaminated and thereafter passing the disease agent to susceptible recipients. Various efforts to sterilize plasma by prolonged storage, drying, and irradiation have not been consistently successful and thus the use of any form of plasma carries with it a definite risk. The same is true of some other blood products such as packed red cells, fibrogen, thrombin, or Fraction IV, but the viruses are destroyed in the processing of Fibrin Foam, gamma globulin, and albumin after heating at 60° C. for 10 hours.

Syringe transmitted epidemics of hepa-

titis have long been recognized and the common denominator is the use of multiple doses of medicine in one syringe, the operator simply changing needles for each patient. No matter how careful he is there is always a chance that a reflux into the syringe of tissue fluid from a carrier may infect the entire syringe, with danger to subsequent patients. Thirty minutes of boiling or twenty minutes of autoclaving at 15 pounds pressure at 121° F. are accepted as safe methods of sterilizing syringes, needles, tubing, and glassware. The use of an individual sterile Hemolet which is discarded after being used once is the desired method for sticking the finger pad or ear lobe for certain hematology procedures, certainly not the old fashioned Hagedorn needle thrust through a cork, its tip immersed in alcohol, which will not kill hepatitis virus, and which soon simply serves as a source for the inoculation of subsequent patients.

Regardless of how it is contracted the disease begins as an enteric infection which may remain asymptomatic, thus producing a carrier. With what actual frequency this occurs is not known. Propagating itself in the dark confines of the intestinal tract, it may and usually does invade the blood stream producing a viremia infecting many organs but showing a marked predilection for hepatic tissue which it damages to a variable extent, ranging from mild disturbance of the liver, without the production of jaundice, to acute yellow atrophy with deep icterus culminating in death from hepatic failure. It is this unpredictability of the severity of this usually mild disease which engenders respect in the mind of the mature clinician, and leads him to avoid cocksure prognosis.

While the great majority of patients make an uneventful recovery over a period of weeks, an unknown though probably small number sustain sufficient damage to gradually lead to cirrhosis, as the infection smolders on and on in the liver.

Early in the clarification of this disease it was found that at least two viruses could cause hepatitis, the virus of infectious hepatitis (Virus A), sometimes referred to as the IH virus, and that of serum hepatitis (Virus B) often called the SH virus. Though there are some similarities in the clinical behavior of these two agents and marked similarity of the pathologic behavior, there are also differences, the SH variety having a longer incubation period, a more insidious onset, less fever as a rule, and more often urticaria and arthralgia. They differ antigenically and thus do not afford cross immunity; indeed an attack with either seems to render the individual more susceptible to an attack with the other, a feature observed especially in Italy in World War II where I was first initiated into the complexities of this disease. The incubation period varies greatly, possibly due to age of the patient, host resistence, and virulence of organism. That of infectious hepatitis has been estimated as anywhere from 15 to 50 days and that of serum hepatitis much longer, 60 to 180 days.

Recent studies may constitute a breakthrough in regard to tissue culture of the hepatitis virus. Taylor and associates[11] describe techniques of isolation and maintenance of three serotypes of very small spherical or polyhedral viruses which infect cytoplasm but not the nucleus of cells, apparently consisting of ribonucleoprotein. They are resistant to ether and other chemical compounds, and to a large extent to heat. They have tentatively labeled this group Hemovirus. Surprisingly enough they have isolated such viruses from the blood serum of 5 to 35% of normal persons and from more than 95% of cases of viral hepatitis. Moreover two of the serotypes have produced hepatitis in volunteer subjects. Extensive research is proceeding in an effort to isolate and maintain the viruses of infectious hepatitis in human or other mammalian cell cultures. They are continuing their efforts to perfect a serologic test for viral hepatitis so badly needed clinically for diagnostic purposes, for epidemiologic surveys, and for blood bank use. If their work is corroborated, it would appear but a matter of time until an effective vaccine could be produced to prevent or to markedly ameliorate this challenging disease.

Pathology

The old erroneous concept of Virchow that the basic pathology was an ascending catarrhal inflammation in the biliary tree

led to the misnomer "acute catarrhal jaundice." The primary lesion is injury to, and necrosis of the hepatic parenchymal cells in varying degrees and locales, ranging from a slight change to disintegration of the liver by acute yellow atrophy. Massive central necrosis of liver lobules leads to postnecrotic cirrhosis which may or may not progress. Unanswered questions of tremendous importance revolve around what per cent of such cases gradually deteriorate into recognizable cirrhosis of the liver late in life.

The portal and periportal areas show edema and cellular infiltration, usually suffering less, however, than the varying degrees of degeneration of parenchymal cells, though the reverse is sometimes seen in the cholangiolitic type.

There is no definite correlation between the histologic findings and the degree of jaundice or disturbance in the metabolic functions of the liver. The large bile ducts are not involved in this disease but viral gastritis and duodenitis do occur, and splenomegaly. Also the mesenteric lymph nodes become congested and likewise the cervical nodes, rarely others. Arthralgia and Urticaria, though rare, sometimes occur. In the vast majority of cases the liver gradually repairs itself so skillfully that in time even the supersensitive transaminase determinations do not reveal any function abnormality of the organ.

Classification

The most useful classification of infectious hepatitis is as follows:[12]

1. Acute infectious hepatitis
   A. With jaundice.
   B. Without jaundice.
2. Chronic infectious hepatitis
   A. With jaundice.
   B. Without jaundice.

Acute infectious hepatitis is considered to be that type of the disease which is apparently cured in less than three months. Cases which remain active longer than three months are said to be chronic.

At first when some of we medical officers in Italy began to observe an increasing number of cases of acute infectious hepatitis without jaundice, wherein the entire clinical and laboratory progress was identical with that in jaundice cases save that icterus was absent, grave doubts were cast on the accuracy of our observations. In fact a commission of experts was flown to Italy to study these cases and agreed that acute infectious hepatitis need not necessarily produce icterus, and that the anicteric form of the disease was a frequently encountered reality. Since then it has been common medical knowledge that the absence of jaundice should by no means militate against a diagnosis of infectious hepatitis.

Many cases of infectious hepatitis have jaundice during the acute phase but lose the icterus before the chronic phase is reached; others have recurring episodes of icterus for months or years punctuating the hepatic exacerbations. Rarely a case of infectious hepatitis without jaundice will smolder into the chronic stage and flare-up finally with icterus.

Stages and Clinical Course

Infectious hepatitis, for purposes of diagnosis and treatment, can also be divided conveniently into the following stages:

1. The preicteric stage.
2. The icteric stage.
3. The posticteric stage.

I. The Preicteric Stage.

Infectious hepatitis is notoriously difficult to diagnose in the preicteric stage, which may last from 1 to 14 days, usually about 7. This is due to the fact that no clearcut syndrome marks the onset of this malady. The disease may begin in the variety of ways listed below:

1. The nonspecific febrile onset.
2. The fulminating onset.
3. The asymptomatic onset.
4. Nonspecific acute diarrhea.
5. Nonspecific acute respiratory infection.
6. Pseudosurgical abdomen.
7. Acute right renal syndrome.
8. Simulating meningo-encephalitis.

(1). The majority of cases of infectious hepatitis begin with a nonspecific febrile syndrome. The patient experiences marked malaise, weakness, fever, chilliness or irregular chills, headache which is chiefly frontal or orbital, and striking anorexia. Smokers quite often develop a partial or complete antipathy to tobacco, which puzzles them but alerts the clinician to the

possibility of infectious hepatitis. The fever usually ranges from 99 to 103 degrees. These symptoms persist for a variable number of days, usually 3 to 7 but often longer, before attention is drawn to the abdomen by nausea, vomiting, and aching pain usually confined to the right upper quadrant and the epigastrium. Physical examination is usually negative except for lymphadenopathy and hepatomegaly with or without splenomegaly. In a high percentage of preicteric cases the cervical lymph nodes are swollen tender, and distinctly palpable. In fact at times they reach the dimensions of English peas or butter beans. The nodes just anterior or posterior to the middle third of the sternocleidomastoid muscles are the principal ones involved. The occipital nodes are commonly swollen, the axillary and inguinal nodes less frequently. Careful abdominal palpation usually reveals the edge of the liver from one to four fingerbreadths below the right costal margin; it may even reach the right lower quadrant of the abdomen. This enlarged liver is quite tender. In nonpalpable livers tenderness can often be elicited by heavy percussion over the right lower chest anteriorly or laterally, or by having the patient stand with abdomen relaxed while the physician dips his fingers suddenly under the right costal margin. Tenderness in the right costovertebral angle is common. Moderate splenomegaly is present in about 20% of the cases.

The syndrome just described usually ameliorates near the end of the first week of the disease. As the patient's fever disappears and his symptoms abate a false sense of medical security is induced which often leads to premature ambulation of the patient or even dismissal of the case. This error is recognized usually when icterus appears, but not before additional hepatic damage has been sustained by overactivity of the patient.

(2.) The fulminating mode of onset is not rare. A previously healthy individual is suddenly stricken with repeated hard shaking chills, high spiking fever up to 106 degrees, severe headache, often stiff neck, marked brachyalgia, nausea, intractable vomiting, diarrhea, complete anorexia, and profound weakness. Death may occur in five days or longer, or the patient may survive such a terrific viral septicemia to linger severely ill for weeks or months before convalescence is established.

(3.) The asymptomatic onset is sometimes seen. Such a patient, without any preicteric symptoms, suddenly notices that his eyes or skin are yellow or that his urine is the color of tea and reports to his physician.

(4.) Diarrhea as a mode of onset is common. At first this may resemble any form of acute gastroenteritis, so dominant are the gastrointestinal symptoms. The enlargement of the liver and the development of icterus make the proper diagnosis.

(5.) Some cases of acute infectious hepatitis begin with rhinorrhea, sore throat, cough, fever, chills, and pain in the chest. As cervical lymphadenopathy appears infectious mononucleosis may be simulated closely, particularly since the latter commonly causes hepatic damage and sometimes jaundice. A definite bronchitis may develop. Later liver symptoms appear with or without jaundice.

(6.) The pseudosurgical abdomen is a confusing manner in which infectious hepatitis may rarely start. Severe pain in the right lower quadrant with local tenderness and slight fever may mock appendicitis deceptively. The same picture with the locale shifted to the Mayo-Robson point may simulate acute cholecystitis. In the few such cases which have been operated upon the surgeon discovers intensely congested and swollen mesenteric or retroperitoneal lymph nodes as the cause of the abdominal pain.

(7.) Rarely, pain in the right costovertebral angle referred from the nearby inflamed liver can be so conspicuous as to lead to a tentative diagnosis of disease of the right kidney, such as stone or pyelitis. A trace of albumin, a few leukocytes and erythrocytes in the urine, findings commonly observed in febrile conditions, lead the diagnostic mind farther afield. Fortunately, conservative observation permits the passage of time to clarify the diagnosis.

(8.) On several occasions I have isolated preicteric cases of infectious hepatitis with a tentative diagnosis of meningitis, so marked were the stiff neck, the hyperactive reflexes, irritability, clouding of sensorium,

vomiting and fever. The spinal fluid in such cases is reassuringly normal.

I have gone to some length in discussing the preicteric clinical picture of acute infectious hepatitis because it is difficult and important to make an early accurate diagnosis and to institute correct treatment promptly.

II. The Icteric Stage

After a preicteric stage of variable length, usually averaging close to one week, jaundice appears and the icteric stage commences. Often but not always the onset of jaundice coincides with a temporary exacerbation of the symptomatology. Fever, which had smoldered down, may flame up and vomiting may reappear. It takes days for the icterus to reach its peak, but when it does the fever usually abates and the patient feels surprisingly improved and appears less toxic in spite of his jaundice. The temptation is great to permit ambulation if the patient insists on it, but the wise physician will continue to enforce bed rest and other methods of therapy. In the majority of cases jaundice persists for about three weeks. There are numerous exceptions to this, however, and it often lasts only a few days in mild cases, or many months in severe ones. During this stage the anorexia, which had been so profound as to be partially diagnostic, disappears and the appetite returns, often voraciously. This is definitely the turning point of the disease.

III. The Posticteric Stage

When jaundice disappears the patient enters the posticteric stage of the disease, often referred to as the convalescent stage. However, he is by no means ready for ambulation until he has been observed adequately and has passed the criteria for ambulation to be discussed later. In this stage fever is absent, appetite, weight, and strength are regained, liver size and tenderness decrease, and the laboratory evidence of disturbed hepatic function declines toward normal.

Laboratory Procedures

A complete blood count is habitually secured in sick individuals. In the disease under consideration the erythrocyte and hemoglobin values are of no aid in diagnosis, but the normalcy of the total white cell count should attract attention quickly by excluding diseases characerized by leukocytosis, such as Weil's Disease. Occasionally the white cell count is slightly elevated or even leukopenic. One should search carefully for large lymphocytic cells with vacuolated cytoplasm and darkly staining nuclei resembling the cells of infectious mononucleosis, since a varying percentage of such cells are found on the differential leukocytic count in infectious hepatitis, and often lead the alert clinician into the all important early accurate diagnosis.

The urinalysis is helpful diagnostically only in a negative manner as a rule. The usual febrile slight albuminuria and an occasional cast or red cell should be expected. If one is considering infectious hepatitis the urine should be checked for elevated urobilinogen and if this is found the finger of suspicion can be pointed toward the liver.

The sedimentation rate of erythrocytes is an important test in any stage of infectious hepatitis, especially in the early stage, as it is almost invariably normal. Sometimes it is strikingly low in marked contrast to many other acute infections which the worried physician may be considering at this diagnostic time, such as various forms of acute respiratory or gastrointestinal infection. In the exceptional case it may rise slightly but any persistent significant rise is so unusual as to suggest either an erroneous diagnosis of hepatitis of some concomitant disease or focus of infection.

This is not the place for an exhaustive discussion of liver function tests but some of the more commonly performed ones requires consideration.

If I had to select only one test of liver function, it would be the bromsulphalein test. This is performed by injecting intravenously 5 mg. of the dye per kilogram of body weight of patient. Blood is drawn 45 minutes later and this should show less than 5% of dye retention. Definite elevations above that incriminate the liver but by no means identify the etiology of the hepatic damage. This extremely sensitive test is highly reliable. It is a waste of time and money to perform it when obvious icterus is present, for if the patient cannot clear his blood stream of an endogenous pigment

such as bilirubin, he certainly cannot be expected to excrete an exogenous pigment such as bromsulphalein. Later I shall refer to this test in helping to determine when to permit the patient to get out of bed.

Actually there is no absolutely pathognomonic liver function test for viral hepatitis, cirrhosis of the liver, neoplastic or metabolic liver disease, or any other specific kind of liver disease. This fact is fundamental in interpreting all so-called liver function tests. Even the behavior of serum transaminases, as sensitive as they are to hepatic disease and as commonly as their values rise in the presence of it, are not pathognomonic. They may be elevated in a variety of nonhepatic conditions such as myocardial infarction, pulmonary embolism, cerebral thrombosis, or trauma to muscular tissue. Nevertheless, these conditions are usually quite easy to differentiate from liver disease. Serum bilirubin is elevated not only in viral hepatitis with jaundice but also in drug induced hepatitis, such as that due to chlorpromazine (Thorazine), or in obstructive or hemolytic jaundice. Levels of serum protein likewise may be altered by hepatic or nonhepatic causes, such as nephrosis, malnutrition, and by a host of other diseases. The most, then, that the clinician can hope to do is to establish by history and physical examination that the liver is diseased, corroborate this by laboratory procedures, and deduce by experience in the course of the illness that the fundamental diagnosis is viral hepatitis. A judiciously selected and sagely interpreted battery of tests can, however, establish the diagnosis accurately in a high per cent of cases.

The cephalin flocculation test, if carefully performed and strongly positive, is excellent evidence in favor of a diagnosis of infectious hepatitis since it is indicative of parenchymal liver cell damage. The test is reported as 0, 1+, 2+, 3+, 4+ degrees of positivity. It is read at 24 hours and again by some technicians at 48 hours. There are three main causes of a falsely positive test: (a) the antigen for the test is photosensitive and exposure to sunlight supersensitizes it; (b) the pH of the diluent used in the test is altered if the solutions are not freshly made up; and (c) bacterial contamination of the blood specimen occurs easily, especially in hot weather, unless the skin over the site of the venipuncture is sterilized carefully. All three of these laboratory pitfalls affect the 48 hour reading much more than they do the 24 hour reading; hence the 24 hour reading is far more reliable. A result of 2+ or greater at 24 hours indicates liver damage. Many apparently normal people have a 1+ score. While some cases of hepatitis have a low score, as do many other infectious diseases, the vast majority show strongly positive scores indicating active parenchymal hepatic damage.

The quantitative serum bilirubin is far more reliable than the icterus index. The latter is vitiated by any hemolysis which occurs during the performance of the test, and it also is elevated by certain drugs like Atabrine which the patient may be taking, and chromogens such as carotin. The deeper the jaundice, as shown by the quantitative serum bilirubin, the more severe is the hepatitis as a general rule though there are exceptions. Cases have proceeded to acute yellow atrophy before jaundice has been evident but this is not common.

The van den Bergh is usually diphasic in infectious hepatitis with jaundice and therefore is of little diagnostic help.

The alkaline serum phosphatase test is measured in Bodansky or King and Armstrong units, the upper limit of normal being 4 units by the former method and 10 units by the latter method. This test is considered as being indicative of obstructive jaundice. It is a good procedure to perform if the presence of jaundice interferes with the bromsulphalein determination. There is recent evidence to show that this test is not nearly as accurate as previously supposed in differentiating obstructive jaundice from hepatic jaundice. Becker and Stauffer,[13] surveying 100 patients with each of these conditions, found that 93% of the cases of obstructive jaundice and 40% of the cases of hepatic jaundice had values for alkaline phosphatases exceeding 30 King and Armstrong units, an overlap which virtually rules out using this level of positivity of the test to differentiate the two conditions. Nevertheless, the higher the score the more the probability of obstructive jaundice.

At this point it should be remembered

that a form of hepatitis referred to as cholangiolitic hepatitis, where in the primary pathologic change is concentrated in and around myriads of cholangioles and thereby causing intrahepatic obstructive jaundice, has been described by numerous observers, notably Cecil W. Watson. In this form of hepatitis liver tests based on hepatic excretory function, such as dye excretion studies and alkaline phosphatase, are highly positive. This high positivity plus negative or weakly positive tests of parenchymal liver cell function, such as the cephalin flocculation and thymol turbidity tests, can easily mislead the physician into assuming that since this profile of tests is that found in obstructive jaundice surgery is indicated to relieve the obstruction, a decision which is reinforced by the pallor of the stools. Nothing could be more injurious to an already damaged liver than a general anesthetic and the stresses not only of the operation but of the postoperative phase. Under these circumstances the clinician should inquire most diligently into previous use of certain potentially hepatotoxic drugs, such as Thorazine, arsenicals, or testosterone which, if they injure the liver, usually do so in a cholangiolitic fashion. In intrahepatic obstructive hepatitis the retention of bile salts leads to pruritis and bradycardia, and the liver enlarges considerably.

The differentiation of obstructive from hepatitic jaundice can be one of the most frustrating of medical dilemmas, and at times can be settled only by needle biopsy of the liver, which in itself can be misleading as well as carrying a small though not negligible risk of hemorrhage, especially since the prothrombin values of such patients are almost invariably abnormal. Due to the inability of the widely damaged liver to manufacture prothrombin, and the often inadequate ingestion and absorption of vitamin K precursors, it is easy to understand why a hemorrhagic diathesis develops so commonly, and it is important to understand that large parenteral doses of vitamin K do not always correct this difficulty. In fact one of the most ominous prognostic signs in viral hepatitis with jaundice is the failure of parenterally administered vitamin K type drugs to return to normal the altered prothrombin times, a laboratory sign almost routinely found in acute yellow atrophy with coma. Once this is detected the patient only rarely survives very long.

The thymol turbidity test is an excellent test of damage to the parenchyma of the liver, and the upper limit of normal is 5 units. Like the cephalin flocculation test, it also depends on alterations of the serum proteins but it has the advantage of less false positive results, and is a quicker test with the results being available the day the blood is drawn.

The recent research on the activities of serum enzymes, such as serum glutamic oxalacetic transaminase (SGOT), serum glutamic pyruvic transaminase (SGPT), and lactic dehydrogenase (LDH), especially the first two, has made available for clinical use the most sensitive chemical indicators of acute liver disease yet discovered. They have no peers in the early diagnosis of such liver diseases as infectious hepatitis and toxic liver necrosis, and are highly useful in evaluating the progress of these diseases. The upper limit of normal of SGOT is 40 units and that of the SGPT 35 units. In the presence of acute hepatitis these values are usually tremendously elevated and scores running into the hundreds of units are quite common.

A physician suspecting the presence of infectious hepatitis should obtain a determination of the SGOT and SGPT, recognizing that they may be elevated by nonhepatic diseases such as myocardial infarction and pulmonary embolism, but these are usually quite easily differentiated from hepatitis clinically, electrocardiographically, and roentgenologically. In the presence of acute hepatitis the scores of these transaminases are usually far higher than expected in the other conditions just named. Certainly they constitute two of the finest and newest laboratory approaches to the diagnosis of this disease, and are useful especially at the very time when they are most needed, in the preicteric stage and in cases of infectious hepatitis without jaundice. Moreover, serial determinations of these transaminases enable the clinician to follow the case accurately.

There are many other liver function tests which I have not discussed and which time does not permit me to evaluate. For ex-

ample, it is well-known that in the presence of severe liver disease serum cholesterol rises, the esterification of cholesterol falls, globulin rises, and albumin falls, I doubt, however, whether the practicing physician will find any need for liver function tests other than the ones I have already discussed.

Treatment

The most important fundamental in the treatment of infectious hepatitis is bed rest.[7] In the active stage this is the *sine qua non* and the physician who compromises too much in this regard is doing his patient a serious injustice. Provided the patient is strong enough, and he usually is, I see no objection to the use of a bedside commode or even an adjoining bathroom. It should be remembered that in active serious liver disease the organ functions best when the patient is at rest. The moot question of how long to maintain such strict bed rest will be discussed later under criteria for ambulation.

Through the years much debate has revolved around the dietetic approach to the treatment of this disease. Fifteen years ago the thought feeling generally was that a 3000 calorie diet was in order, comprised of at least 200 grams of protein, no more than 50 grams of fat, and the rest to be supplied as carbohydrate. This extremely low fat diet is hard to achieve without monotony, and patients' acceptance of it is not enthusiastic. More importantly it has been shown since that such rigid dietetic criteria are unnecessary and that the goal should be to encourage the patient to eat easily digestible bland foods that tempt his dampened appetite, at the same time avoiding rich seasoning and greases, which are most unlikely to appeal to him at this stage of the illness anyhow. Later on, as his dyspepsia, nausea, and anorexia decrease a 3000 calorie diet high in protein and vitamins is advisable.

I am impressed with the real importance of an adequate daily caloric intake in this disease. The liver simply cannot repair itself adequately on a low intake of building blocks. Time and again I have seen patients do poorly when close attention to the actual food intake of the patient has revealed a grossly suboptimal ingestion of calories, sometimes as little as 800 or 900 a day. These patients usually show sharp improvement when the dietitian exerts her every effort to tempt the flagging appetite. It is often better to serve small frequent feedings than to expect such a patient to eat three bulky meals per day. At first liquids and semisolids may be taken more easily than substances which require mastication.

There is possibly no proven need for multiple vitamins as supplements in the case of average severity but most of us prescribe them, empirically, I am sure, especially if the caloric intake is low, or the patient responds too slowly, or if the case is chronic. One must observe, however, whether these adjuncts aggravate the already existing nausea and indigestion, or induce these symptoms in previously comfortable patients, as they occasionally do.

The popularity of the use of lipotropic agents and intravenous amino acids has declined steadily as studies have shown how infrequently these expensive substances are actually needed. They should be reserved for the critically ill or unresponding cases where malnutrition is a serious problem.

When parenteral feeding is required because of vomiting, coma, or the patient's refusal to eat, 3000 to 4000 ml. of 10% glucose per day intravenously is usually required. The 24 hour urine output must be assiduously recorded under these circumstances to be sure not only that it is adequate, but also that it is not excessive.

Iatrogenic diuresis damages the patient because it induces electrolyte losses. A word should be spoken in regard to abuse of normal saline solutions. Damaged tissue anywhere in the body tends to attract the sodium ion as it liberates the potassium ion, and the rapid concentration of sodium in the sick liver steadily attracts water, thus increasing hepatomegaly and intrahepatic pressure, sometimes suddenly and painfully. No hard and fast rules can be laid down as to the exact quantities of fluid, glucose, and saline which should be employed; these requirements must be individualized to fit the clinical circumstances, and serum electrolyte determinations should be used as parameters for therapeutic decisions.

There is no justification for giving intra-

venous plasma as this potentially icterogenic substance may add gasoline to the fire. In the collapsing or bleeding patient whole blood transfusion constitutes the replacement agent of choice.

Gamma globulin is useful prophylactically but not therapeutically. In Italy during World War II, I gave immense doses to numerous closely observed cases of infectious hepatitis with jaundice, without benefit, and the same can be said for its exhibition in the presence of acute yellow atrophy.

ACTH and glucosteroids have not lived up to early expectations. Their antipyretic, antiphlogistic, and anabolic effects often give temporary improvement but when they are discontinued the artificially suppressed disease flares up. The long term use of these agents in chronic cases has achieved little to recommend it, and simply subjects an already ill patient to the well-known complications of prolonged steroid therapy. Their use should be reserved for the desperately ill patient. Unfortunately there is no specific therapeutic weapon to use against viral hepatitis. Until the discovery of one, the clinician simply supports the patient until immunity and resistance come to the rescue.

In an effort to palliate the restlessness and discomfort of the patient, the physician should be extremely aware of the impact of barbiturates and narcotics, as the damaged liver may not be able to detoxify these drugs quickly, and doses of usual size may be toxic. This is especially true of morphine which has, on occasion, in average doses caused serious respiratory depression. Numerous excellent antiemetic agents are available today to control nausea or vomiting.

It should be remembered that the virus is spread by excreta and that fomites become contaminated and have transmitted the disease. Therefore aseptic precautions should be employed in handling excreta, bedding, books, and utensils used by the patient. How long to continue this type of vigilance is not yet settled, but at least until the acute phase of the disease is over. Syringes and needles used on the patient should by all means be washed thoroughly and sterilized by boiling for 30 minutes or autoclaving. Family contacts and office or hospital contacts should be immunized with gamma globulin. The dose of this has been widely quoted as being anywhere from 0.06 ml. to 0.01 ml. per pound; I usually use 0.05 ml. per pound. This is given intramuscularly. It affords protection to most recipients even if given as late as six days before the onset of the disease. A 1% solution of iodine is more effective than other agents for instruments which would be damaged by heat. Books used by the patient should not be given to other people as in one recorded instance this apparently caused the disease in two isolated patients who received books from a hepatitis case. Be sure to remember that the roll of toilet paper used by the patient becomes heavily contaminated as do the bed pan and the toilet. Some observers have cultured the viruses from stools of convalescent patients for many months after the initial illness; some have found stools still containing the virus years afterwards; and blood donors have transmitted the disease up to 20 years after they themselves have been icteric. Thus it is seen that the duration of infectivity is uncertain, prolonged, and remains one of the problems in the control of the disease. In fact it remains one of the greatest problems.

Immunization, by the use of gamma globulin as discussed previously, of close contacts, members of the family group, school associates, other individuals in camps or institutions, rests on sound principles and has been shown repeatedly to be quite effective, though it cannot be expected to prevent the disease if given too late. There is evidence to show that it really does not always block the development of infectious hepatitis anyhow,[14] but so markedly ameliorates it that the recipient remains ostensibly well yet laboratory evidence such as mildly positive liver function tests indicate active subclinical infection has occurred. This may be all to the good, as in this manner a passive-active immunity of lifelong duration may be induced, passive by virtue of the temporary protection of gamma globulin, and active because of the actual viral infection, which affords permanent immunity. There is evidence that gamma globulin itself, used prophylactically, gives

protection for no more than six or eight weeks.

In a patient receiving blood transfusions the intramuscular injection of 10 ml. of gamma globulin twice, the doses a month apart, provides considerable protection of the recipient against serum hepatitis.

This deserves further trial in view of the impressive report of Allen and Sayman[15] of over 2,300 transfused patients showing that 3.1% of patients receiving whole blood developed serum hepatitis, with no deaths recorded in those less than 40 years of age but a mortality rate of 23% in those above age 40 who thus contracted serum hepatitis. This is a startling and shocking set of statistics. Moreover, the older group has a greater chance of developing serum hepatitis. They detected no sex difference and found, as expected, that the greater the number of units of blood given the greater the risk. The average mortality rate from serum hepatitis for all patients was 0.89%. Is this not a penetrating reminder that physicians should never transfuse patients unless absolutely necessary?

It should be remembered that the IH virus can be transmitted by whole blood also, in which event hepatitis develops much more quickly in the recipient than when the SH virus is thus transmitted. One wonders whether barbers transmit the disease by contaminated razors nicking necks and faces, analogous to the well-known inoculation of the virus by tattooing.

Criteria for Ambulation

Premature ambulation of cases of hepatitis invites further liver damage leading to increased chronicity, morbidity, and mortality. Thus the decision as to when to ambulate the patient is of great importance. While some minor differences of opinion exist as to what criteria to use, I have found over a period of years the following to be extremely worthwhile, and if they are met there is little danger of inducing a relapse:

(1.) No matter how mild the case has been, the patient should have spent at least three weeks in bed, with bathroom privileges however.

(2.) The liver should not be over one fingerbreadth enlarged and it should not be tender.

(3.) For at least one week the patient should not have had visible evidence of jaundice, and preferably no chemical evidence. An exception can be made for the occasional case with slightly elevated serum bilirubin if all other criteria are passed successfully, as some patients run a mild elevation of serum bilirubin for many months after hepatitis.

(4.) Bromsulphalein test should not exceed 10% dye retention in 45 minutes using the 5 mg. per kilogram of body weight technique.

(5.) The cephalin flocculation test should not exceed 2+ in 24 hours.

(6.) The sedimentation rate of erythrocytes should be normal.

(7.) The patient must have demonstrated his ability to regain some of the weight he has lost and the more he has regained the safer it is to ambulate him.

(8.) He should be relatively asymptomatic. If the patient is of a psychoneurotic disposition, not too much attention should be paid to this last criterion provided he has passed successfully the previously listed ones.

Again I would like to emphasize that premature ambulation is one of the major causes of chronicity in this disease.

Having achieved ambulation, the patient can resume very gradually his normal activities, avoiding heavy exertion for months. Relapses can be precipitated at this stage by excessive use of alcohol and it is common policy to interdict all forms of alcohol for three months.

Liver Failure

In the management of these cases one should be constantly alert to the development of liver failure either early in the fulminating cases or later on in the chronic or relapsing cases. The clinical picture is the same regardless of when this complication develops. Fortunately the incidence is extremely small but the mortality rate is excessive.

The first tip-off that liver failure may be developing is an increasing irritability of the patient with restlessness, headache, and change in behavior. A previously cooperative patient may resist medications and become antagonistic. Under these circum-

stances the alert physician will think of hepatic failure at once. Close attention should be paid to temperature, pulse, and respiration as all of these rise as a rule. In fact the temperature may reach hyperpyrexia levels. The severity of the pain in the region of the liver has been very much underemphasized in the literature. In my experience practically all such cases have a considerable flare-up of hepatic pain sometimes severe enough to make them cry out. One occasionally sees a case die painlessly but this is very much the exception.

The sensorium becomes cloudy and the patient at times maniacal; he usually has to be restrained. Flapping tremors have been described and palmar erythema. These signs are by no means consistent, however.

Hyperthermia, convulsions, and a hemorrhagic diathesis develop. I have seen the temperature reach 109 degrees. The convulsions may be due to hypoglycemia, and blood sugar determinations should be performed frequently; they are chiefly due to toxicity and occasionally to minute cerebral capillary hemorrhages. Severe hypoprothrombinemia and capillary damage resulting in bleeding almost invariably develop and it is common to see petechiae, ecchymoses, or bleeding from bodily orifices—hematemesis, hematuria, melena.

Jaundice deepens and the liver function tests increase in positivity. A pathognomonic test of hepatic failure is a marked fall in blood urea nitrogen (BUN.) in relationship to the non-protein-nitrogen (N.P.N.). Usually the former is almost 50% of the value of the latter, but in liver failure one may see a sharp decline in this ratio. For example, the N.P.N. may be 80 mg. per 100 ml. and the BUN. 11 mg. per 100 ml. These two tests should be performed on the same specimen of blood. There is no disease except liver failure in which this dissociation of nitrogenous elements develops; but it is not demonstrable in every such case. When present it shows the inability of the dying liver to produce urea by deaminization of proteins. If liver failure is suspected, a prothrombin time should be performed and it will be found quite abnormal. Injections of vitamin K will not correct it, an ominous sign.

While the vast majority of patients with liver failure due to hepatitis succumb, an occasional case can be saved. I have seen several patients remain unconscious and apparently moribund for days, only to finally survive and make a good recovery. The following methods of treatment are important:

(1.) A duodenal tube should be inserted to keep the stomach empty as it is usually filled with a bloody exudate which may be vomited and aspirated with resulting fatal pneumonia or asphyxia. Through this tube fluid and calories can be administered.

(2.) Fluid and electrolyte balance must be maintained with an adequate urine output. This requires intravenous administration and a cut down on a vein should be made so that a slow drip of glucose solution can be maintained, and other solutions given as needed.

(3.) The hematocrit should be followed closely as some of these patients hemorrhage quite severely and the blood must be replaced.

(4.) While hyperthermia does not invariably develop it usually does and must be treated vigorously or the patient will become exhausted. Alcohol sponging and antipyretics are in order.

(5.) Hypoglycemia must be prevented. On several occasions I have demonstrated extremely low blood sugars in the presence of convulsions and the siezures can sometimes be quickly brought under control if this is the causation. The severely damaged liver cannot properly utilize or synthesize adequate amounts of glucose and the excessive fever greatly increases the metabolic requirements for glucose; hence hypoglycemia is to be expected under these circumstances.

(6.) The only effective way to handle the hypoprothrombinemia is whole blood transfusions as massive doses of vitamin K usually have no effect when the liver is this badly damaged.

(7.) Hypotension develops and the patient drifts into peripheral vascular collapse. Levophed or other agents can be used to prevent this.

(8.) It should be remembered that one of the functions of the liver is to detoxify drugs, such as narcotics and barbiturates. In hepatic failure the liver simply cannot carry out this function properly and hence such drugs exert a much greater effect than

is anticipated; hence the physician should use them sparingly and in small doses.

(9.) Protein intake should be kept at a minimum to prevent increase of coma. Caloric requirements can be met by carbohydrate, and multiple vitamins should be added to the intravenous solutions.

(10.) Neomycin in doses of 8 to 12 Gm. per day partially sterilizes the gastrointestinal tract preventing invasion of the patient by pathogens from this region, which so commonly occurs under these circumstances. By eradicating bacteria, the antibiotic also decreases the production of ammonia, which is toxic in liver failure and possibly one of the main causations of coma.

(11.) Under these desperate conditions one is justified in using steroids in an heroic attempt to win the day. Hydrocortisone intravenously in doses of 300 to 500 mg. per 24 hours may save an occasional patient.

(12.) The intravenous use of arginine hydrochloride or arginine-glutamate combinations have been tried with equivocal results. If they are used, the dose of either is 100 Gm. in glucose intravenously daily.

Various observers, including the author, have in the past used massive intramuscular injections of gamma globulin in the presence of liver failure due to hepatitis, without tangible results. This therapeutic approach has been well negated.

The conscientious physician who persists in the above measures will be rewarded occasionally by seeing his patient recover health.

Summary

(1.) Viral hepatitis is caused by at least three and probably more types of viruses which have now been isolated, and they are serologically different.

(2.) This disease ranks second only to influenza among dangerous acute viral infections.

(3.) It is spread by the intestinal-oral route and occurs sporadically or in epidemics. Outbreaks due to contaminated food, water, and shellfish have been described.

(4.) Anicteric as well as icteric cases occur, thus making diagnosis difficult, but a thorough understanding of liver function tests and the natural history of the disease permit accurate diagnosis in the great majority of cases.

(5.) There is no specific treatment, yet supportive measures are highly important in sustaining the patient.

(6.) The disease can be prevented in exposed individuals by the proper use of gamma globulin intramuscularly.

(7.) Definite criteria for ambulation are listed in this article.

(8.) Blood transfusions carry approximately a 3% risk of causing serum hepatitis among recipients, and therefore should never be given unless absolutely required.

References

1. Barker, M. H., Capps, R. B., and Allen, F. W.: Acute Infectitious Hepatitis in the Mediterranean Theater, JAMA 128:997, 1945.

2. Barker, M. H., Capps, R. B., and Allen, F. W.: Chronic Hepatitis in the Mediterranean Theater, JAMA 129:653, 1945.

3. Gauld, R. L.: Field Studies Relating to Immunity of Infectious Hepatitis and Homologous Serum Jaundice, Amer J Pub Health 37:400, 1947.

4. Lucke, B.: The Structure of the Lives after Recovery from Epidemic Hepatitis, Amer J. Path 20:595, 1944.

5. Neefe, J. R.: Recent Advances in the Knowledge of "Virus Hepatitis," M Clin North America 30:1407, 1946.

6. Watson, C. J., and Hoffbauer, F. W.: Liver Function in Hepatitis, Ann Intern Med 26:813, 1947.

7. Hughes, J. D.: Treatment of Infectious Hepatitis by Diet and Rest, Bull U S Army M Dept 4:662, 1945.

8. Capps, R. B., and Stokes, J., Jr.: Epidermiology of Infectious Hepatitis and Problems of Prevention and Control, JAMA 149:557, 1952.

9. Hepatitis Frontiers, edited by Hartman, F. W., LoGrippo, G. A., Mateer, J. C., and Barron, J.: Boston, 1957, Little, Brown & Co.

10. Hillis, W. D.: An Outbreak of Infectious Hepatitis Among Chimpanzee Handlers at the United States Air Force Base, Amer J Hyg 73:316, 1961.

11. Taylor, A. R., Rightsel, W. A., Boggs, J. D., and McLean, J. W., Jr.: Tissue Culture of Hepatitis Virus, Amer J Med 32:679, 1962.

12. Hughes, J. D.: The Diagnosis and Treatment of Infectious Hepatitis, Memphis M J 24:13, 1949.

13. Becker, K. L., and Stauffer, M. H.: Evaluation of Concentration of Serum Alkaline Phosphatase in Hepatitis and Obstructive Jaundice, Amer J M Sci 243:222, 1962.

14. Stokes, J., Jr.: The Control of Viral Hepatitis, Amer J Med 32:729, 1962.

15. Allen, J. G., and Sayman, W. A.: Serum Hepatitis from Transfusions of Blood, JAMA 180: 1079, 1962.

Though the indications for cardiac surgery are quite well-defined for certain lesions, and a successful outcome may be anticipated, there are others for which this is not true. For these other lesions the therapeutic lines are not so sharply defined and the surgical attack may have hazardous consequences. In any event, the initial or suspected diagnosis of cardiac disease amenable to surgical treatment lies in the hands, more often than not, of the family physician, and mainly by the means of the simple stethoscope. The final decision for surgical treatment is usually made by a team of physicians and surgeons utilizing special technics and skills in the complete evaluation of the patient.

The Recognition of Surgically Correctible Heart Disease*

B. C. SINCLAIR-SMITH, M.D.,† Nashville, Tenn.

The assumption is tacitly made that the natural history of certain forms of heart disease can be significantly altered by surgical methods of treatment. There seems no doubt that operations such as ligation of a patent ductus arteriosus, resection of an uncomplicated coarctation of the aorta, or removal of an adherent, restrictive or "calcified" pericardium have become, in well trained hands, elective procedures. The morbidity and mortality from them should be no greater than from other general surgical operations if all modern diagnostic and technical facilities are available.

Problems of selection are less simple when more complicated reparative attempts on the heart are planned. The justification for any cardiac operation must be found in an anticipated and marked improvement in the patient's well-being. The establishment of a diagnosis is not sufficient grounds for recommending surgery. The natural life expectancy of the patient must be compared with the advantages which might accrue from surgical repair. Nor should the significant morbidity of any major technical procedure be overlooked, e.g., aphasia or hemiplegia from a dislodged embolic clot, the occasional empyema, the less fortunate instance of subacute bacterial endocarditis, not to mention the "minor" post-incisional neuralgias, keloid formation or the frequent purposeful sacrifice of major arterial supply to a limb. This list becomes more forbidding when cardiopulmonary by-pass is employed. Recurrent cardiac failure from ventriculotomy, hemopericardium, and complete heart block are but a few of the complications which cloud the patient's recovery and which may readily be forgotten if the patient is lost to follow-up study.

The moral judgment of the internist or cardiologist in recommending intracardiac repair procedures is weighty. The decision to proceed should never be made unless the physician has a good knowledge of the rate and manner of symptomatic progression in chronic valvular and congenital cardiac lesions. The episodic but slowly inexorable and relentless nature of mitral valve disease contrasts strongly with aortic or pulmonary stenosis which has a long asymptomatic period followed by short and dramatic events such as syncope, recurrent chest pain or ventricular failure. Fortunately the decision to operate is now more frequently recommended by a group well trained in the complexities of hemodynamic and clinical evaluation of the major pathologic conditions. It must be continuously reiterated that a precise physiologic and anatomic diagnosis is not a sufficient indication for surgery. The patient must be offered a justifiable improvement commensurate with the pain and discomfort to which he is submitted. A diagnosis in itself, no matter how skillfully obtained is not enough. In contrast, neither is cardiac surgery a legitimate form of euthanasia. The plea, often so anguishly and persuasively given, for something to be done can lead to an even greater distortion of the indications for an apparently good but still unproven procedure. The disillusionment which arises from failed operations, undertaken with

*Presented at the meeting of the Upper Cumberland Medical Society on June 20, 1962.

†From the Division of Clinical Physiology, Department of Medicine, Vanderbilt University School of Medicine, Nashville, Tenn.

ventricular function scarcely capable of supporting life, let alone surmounting the physiologic stress of cardiopulmonary bypass can only spread unhappiness among the relatives and the technical group involved.

These previous admonitions do not undermine the faith that good results can be achieved by the careful selection and proper handling of the cardiac surgical patient. The search should continue for patients who may be unaware of the benefits which are available to them. The final diagnosis and physiologic evaluation of heart disease can be made with a high degree of accuracy in most modern university teaching hospitals. The challenge, which so frequently occurs in all branches of medicine, rests in its initial recognition. The first examination may provide the clue which will alert the attending doctor that a more extensive diagnosis is justified. The gifted mind observes and perceives without prior warning—no substitute fortunately exists, for clinical awareness. For those of us less gifted, a knowledge of the times when cardiac problems arise may lessen the dangers of oversight.

Routine physical examinations, life insurance, employment superannuation and retirement schemes, antenatal supervision, induction into service and school entrance examinations all provide opportunities for the discovery of diagnostic physical signs. A routine "normal physical" can be transformed into a clinical challenge when the relatively high incidence of undiagnosed cardiac defects in the population is appreciated. A cardiac murmur is still the most frequent single finding which directs attention towards the cardiovascular system. Less often an abnormal electrocardiographic pattern or roentgenographic silhouette will arouse interest and curiosity. Although no routine cardiac examination is complete without electrocardiographic and radiologic aid, the greatest help will be obtained from an analysis of abnormal physical signs—especially an appraisal of the hemodynamic significance of a cardiac murmur.

Cardiac Murmurs

All physical signs, and more especially those in the cardiovascular system, when integrated into a clinical diagnosis should make a logical mosaic in which no piece of evidence is redundant. If some observation remains unreconciled then either the diagnosis is incomplete or the observation is imperfectly made and should be re-evaluated. A cardiac murmur should be assessed by the accompanying hemodynamic defect which is present, especially if selective chamber enlargement ensues. The physical signs of right and left ventricular enlargement and pulmonary hypertension are reliable and readily elicited. An over-active left ventricle displaces the cardiac impulse or point of maximal intensity downward and outward and imparts to the index finger when gently applied a forceful, thrusting and robust quality. A sensation of strength is transmitted (except when the ventricle is over-distended and in failure) and this differs from the more diffuse pulsations to be felt from a hypertrophied right ventricle in the third and fourth left intercostal spaces in the parasternal lines. The hypertrophied right ventricle rotates the heart clockwise around its anatomic axis displacing the cardiac impulse posteriorly and leading to difficulty "in localizing the P.M.I." Pulmonary hypertension with each incremental rise of pressure causes progressive right ventricular hypertrophy, an impulse frequently palpable in the second left intercostal space and accentuation of the pulmonary component of the second heart sound at the base being added to the diagnostic features of right ventricular hypertrophy.

Every cardiac murmur should be appraised as to (1) its site of origin and mechanism of production (either ejection or regurgitant in type); and (2) the nature and extent of hemodynamic defect present, i.e., its association with either left or right ventricular hypertrophy or pulmonary hypertension.

A. *Systolic Murmurs:* How is the differentiation made between a systolic murmur at the base of the heart when the site of origin is difficult to determine? Is this lesion aortic or pulmonary stenosis or an atrial septal defect? This distinction should be possible clinically since the first mentioned leads to left, and the second to right ventricular hypertrophy, while the increased pulmonary flow from the intracardiac shunt

From the Executive Director

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Second Special Session of House of Delegates Held on February 2nd

● The House of Delegates met in Nashville on February 2nd, making the second special session conducted since the annual session one year ago. The House met upon the petition of thirty delegates to further determine whether to sponsor a bill in the General Assembly to license non-citizen physicians in Tennessee. The final action of the House was not to sponsor the measure in the General Assembly.

TSMA Endorses Bill On Battered Child Syndrome

● The Tennessee State Medical Association endorsed legislation designed to bring child beaters to justice. This was a bill that was definitely in the public interest.

The General Assembly passed the measure in the closing days of the legislative session. The bill will require doctors to report to law enforcement officers any wound "of unusual nature" which may have been caused by child abuse. TSMA assisted the sponsors of this bill. While it would not necessarily prevent action by the type of persons who would mistreat a child, it would bring these actions to the attention of law enforcement agencies.

Representative Howard Baker Introduces Bill In Congress for Kerr-Mills to Be Administered by Health Departments

● Representative Howard H. Baker, Congressman from the Second District in Tennessee, has introduced a bill in the House of Representatives to amend the Social Security Act to permit states to administer the Kerr-Mills Medical Aid to the Aged programs under the State Public Health Departments. The program is presently administered in Tennessee by the Public Welfare Department. Mr. Baker pointed out that the Kerr-Mills Law is not and never was intended to be a welfare program. It is intended to aid those, who although not indigent, are medically in need due to illness.

Administration of the program by the Department of Public Health instead of the Departments of Welfare of the various states will go a long way toward accomplishing the needs of the public. Also, the step proposed by Congressman Baker will add dignity to the Kerr-Mills program for the aged.

TSMA Council Met On February 24th

● TSMA's Council met in Nashville on February 24th. The Council discussed its report made to the House of Delegates and further recommended that Dr. Francis Cole, Councilor of the Tenth Councilor District, summarize the workshop type meeting conducted with representatives of the three specialties of Anesthesiology, Radiology and Pathology. It was also recommended that the sub-committee on corporate practice be made a continuing committee of the Council.

Tennessee Medical Association Student Education Fund

● The Tennessee Medical Association Student Education Fund has been organized. A seven-man Board of Directors has been named and the organization will be separately chartered to meet the requirements of the Internal Revenue Service. The Tennessee Medical Association Student Education Fund will soon get underway to accept applications, after which these will be processed to determine worthy prospective students that will receive a loan sponsored through the Tennessee Medical Association. The Tennessee Medical Association has

made available $25,000 to be used to aid and recruit outstanding medical students that need funds in order to continue their medical education.

King-Anderson Legislation

● What Congress will do about King-Anderson type legislation is an uncertainty at this time. Some are predicting that the issue will be held over until 1964, an election year, but don't count on that as a sure thing. Two new liberals on the House Ways and Means Committee and Rules Committee are weighted on the liberal side. This may improve chances of the Medicare bill but could widen the split within the party ranks.

Expense Account Rules

● Every physician should get Document No. 5049 from the Internal Revenue Service telling about new expense account rules to be followed in making out 1963 income tax returns . . . Keep good records. . . .

AMA in Atlantic City June 16

● The 112th Annual Meeting of the American Medical Association will be held in Atlantic City, New Jersey, June 16-20. It is expected that some 15,000 physicians will attend and that total attendance may set a new record.

It will be the 17th time that the AMA has met in Atlantic City since 1900. This year the Traymore Hotel and the New Colony Motel will serve as joint headquarters.

Highlights of the meeting will include sessions of the AMA House of Delegates, scientific and industrial exhibits and scientific sessions. A number of special programs are planned. See the AMA publications for hotel reservation forms as listed in the AMA News and AMA Journal.

AMA Meetings

● Following are the dates and places of the 1963-64-65 AMA Annual Meetings and the Clinical Meetings:

1963 Annual Meeting, Atlantic City, June 16-20
1963 Clinical Meeting, Portland, Oregon, December 1-4
1964 Annual Meeting, San Francisco, June 21-25
1964 Clinical Meeting, Miami Beach, November 29-December 2
1965 Annual Meeting, New York City, June 20-24

Are You Having Difficulty Determining Service Benefits Eligibility?

● Physicians participating in the Tennessee Plan often inquire on how best to determine the eligibility of a subscriber who might be eligible for service benefits. Reports indicate that several different methods are in use, but the one that has proved the most acceptable to both the subscriber and the doctor is for the doctor to discuss service benefits with the subscriber before the services are performed and determine from the patient if he is under the applicable income limits of the Tennessee Plan. This is in accord with the acceptable recommendation that the doctor discuss his fee with the patient in advance. The participating doctor needs to know primarily if the subscriber is under or over the applicable income limits. However, in the Tennessee Plan, there are other provisions to be met such as multiple coverage in insurance policies. Such a discussion gives the doctor opportunity to explain to the subscriber any charges he will be making for services which are not covered under the terms of the insurance policy.

Memphis School Winner in Contest

● First place in the 10th Annual Health Project Contest was awarded to the Biology Club of the Whitehaven High School, Memphis, for their entry entitled "Fly Eradication." A check for $500, along with a Certificate of Merit, will be presented to three representatives of the Club, at the President's Banquet in Knoxville, April 8.

Public Service

THE TENNESSEE TEN



Members of the TSMA delegation to Washington attended a breakfast in the Pan-American Room of the Statler-Hilton Hotel with members of AMA's Washington Office. Seated at the first table L to R: Mr. Bill Ramsey, AMA, Chicago; Mr. Jim Foristel, AMA, Washington; Dr. A. Roy Tyrer, Memphis; Mr. J. E. Ballentine, TSMA, Nashville; Dr. James T. Callis, Crossville; Dr. Tom E. Nesbitt, Nashville. 2nd row: Mr. Harold Slater, AMA, Washington; Dr. W. P. Hutcherson, Chattanooga; Mr. Cecil Dixon, AMA, Washington; Dr. R. N. Sadler, Nashville; Dr. J. Kelley Avery, Union City. Standing: Dr. Wm. J Sheridan, Chattanooga; Dr Roy Lester, AMA, Washington Office Manager. 2nd table: left side—Dr. Oscar McCallum, Henderson; Dr. John H. Burkhart, Knoxville; Mr. J. E. Ferguson, THA, Knoxville; Mr. Gene Kidd, THA, Nashville; Mr. A. G. Dierks, THA, Memphis. Right Side: Dr. Harmon L. Monroe, Erwin; Dr. K. M. Kressenberg, Pulaski; Dr. Robert M. Finks, Nashville; Dr. M. F. Langston, Chattanooga; Mr. Hadley Williams, TSMA, Nashville.

Highlights of Washington PR Trip

● A group of 19, including 13 physicians, 3 TSMA staff members, and 3 Tennessee hospital administrators, traveled to Washington, D.C., March 7, to meet with the Tennessee congressional delegation in an effort to bring about a warmer and closer relationship between the medical profession and the senators and representatives from Tennessee.

Members of the group began the day with a breakfast at the Statler Hilton Hotel, with members of the AMA Washington Office. Dr. Roy Lester, Manager, AMA Washington Office, and Mr. Jim Foristel, Field Representative, Washington Office, briefed the delegation on topics to be discussed with our congressmen.

The delegation moved to the House and Senate office buildings where small groups made personal calls to each of the nine congressmen and two senator's offices. A very personal and warm reception by most of the legislators was extended to our group.

A luncheon was given by TSMA for the Tennessee congres-

sional delegation and members of the official party in the House Speakers Dining Room.

Dr. William J. Sheridan, President of TSMA, was spokesman for the visiting group. Congressman Joe L. Evins introduced each member of the Tennessee delegation, that was present, to the visitors.

Representative Howard Baker explained to the group his new bill (H.R. 4511) which he had introduced in the House only two days previous. The bill would amend the Social Security Law to allow the Kerr-Mills program (medical aid to the aged) to be administered through the public health departments of each state, instead of the welfare departments. A great deal of interest was generated by Rep. Baker's short talk and a general discussion on Kerr-Mills and its application in Tennessee to date followed.

After the luncheon, small groups were formed once more and further calls were made to offices of the legislators.

A debriefing and summary of the day's activities was held at the Washington Office of AMA late in the afternoon, after which the group disbanded to return to Tennessee.

—0—

Final Report of 83rd General Assembly

● Tennessee's 83rd General Assembly came to a close March 22nd. Important legislation of interest to members of TSMA acted upon during the past 3 months included:

1. The Good Samaritan Bill. The only bill sponsored by TSMA, it will protect physicians and others who render first aid in emergency situations, from civil liability. The bill passed the legislature and was signed by Governor Clement.
2. The Battered Child Syndrome Bill. This legislation was endorsed and supported by TSMA. The bill provides that medical personnel and institutions report any evidence of brutal treatment of children. The bill was enacted.
3. The Chiropractor Bill. Opposed vigorously by TSMA, this bill would have permitted chiropractors to be licensed in Tennessee without first having passed the Basic Science examination. This bill died in committee.
4. The Dispensing Opticians Bill. TSMA opposed the bill which restricts optical dispensers from fitting contact lenses to patient's eyes, as per doctor's orders. This legislation was passed and sent to the Governor.
5. The Electrolysis Bill. This legislation would provide for certification, licensing and registration of electrologists, subject to provisions of applicable sections of the Tennessee Code. Passed in the House, but died in Committee.
6. Bill Amending Uniform Partnership Act. This is an amendment to provide that an association of three or more professional persons may form an association to practice within the state. This bill was enacted.
7. An amendment to the Code as applying to practical nurse licenses. This bill would have allowed any person serving for a period of two or more years in the medical corps of the armed services to be issued a license upon this qualification in lieu of the required training and examination. The bill was withdrawn.
8. A State Commission on Aging bill was passed setting up the commission.
9. A bill which would require companies employing 300 or more people to secure the full-time services of a registered nurse died in committee.

From the Executive Director

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Second Special Session of House of Delegates Held on February 2nd

● The House of Delegates met in Nashville on February 2nd, making the second special session conducted since the annual session one year ago. The House met upon the petition of thirty delegates to further determine whether to sponsor a bill in the General Assembly to license non-citizen physicians in Tennessee. The final action of the House was not to sponsor the measure in the General Assembly.

TSMA Endorses Bill On Battered Child Syndrome

● The Tennessee State Medical Association endorsed legislation designed to bring child beaters to justice. This was a bill that was definitely in the public interest.

The General Assembly passed the measure in the closing days of the legislative session. The bill will require doctors to report to law enforcement officers any wound "of unusual nature" which may have been caused by child abuse. TSMA assisted the sponsors of this bill. While it would not necessarily prevent action by the type of persons who would mistreat a child, it would bring these actions to the attention of law enforcement agencies.

Representative Howard Baker Introduces Bill In Congress for Kerr-Mills to Be Administered by Health Departments

● Representative Howard H. Baker, Congressman from the Second District in Tennessee, has introduced a bill in the House of Representatives to amend the Social Security Act to permit states to administer the Kerr-Mills Medical Aid to the Aged programs under the State Public Health Departments. The program is presently administered in Tennessee by the Public Welfare Department. Mr. Baker pointed out that the Kerr-Mills Law is not and never was intended to be a welfare program. It is intended to aid those, who although not indigent, are medically in need due to illness.

Administration of the program by the Department of Public Health instead of the Departments of Welfare of the various states will go a long way toward accomplishing the needs of the public. Also, the step proposed by Congressman Baker will add dignity to the Kerr-Mills program for the aged.

TSMA Council Met On February 24th

● TSMA's Council met in Nashville on February 24th. The Council discussed its report made to the House of Delegates and further recommended that Dr. Francis Cole, Councilor of the Tenth Councilor District, summarize the workshop type meeting conducted with representatives of the three specialties of Anesthesiology, Radiology and Pathology. It was also recommended that the sub-committee on corporate practice be made a continuing committee of the Council.

Tennessee Medical Association Student Education Fund

● The Tennessee Medical Association Student Education Fund has been organized. A seven-man Board of Directors has been named and the organization will be separately chartered to meet the requirements of the Internal Revenue Service. The Tennessee Medical Association Student Education Fund will soon get underway to accept applications, after which these will be processed to determine worthy prospective students that will receive a loan sponsored through the Tennessee Medical Association. The Tennessee Medical Association has

made available $25,000 to be used to aid and recruit outstanding medical students that need funds in order to continue their medical education.

King-Anderson Legislation

● What Congress will do about King-Anderson type legislation is an uncertainty at this time. Some are predicting that the issue will be held over until 1964, an election year, but don't count on that as a sure thing. Two new liberals on the House Ways and Means Committee and Rules Committee are weighted on the liberal side. This may improve chances of the Medicare bill but could widen the split within the party ranks.

Expense Account Rules

● Every physician should get Document No. 5049 from the Internal Revenue Service telling about new expense account rules to be followed in making out 1963 income tax returns . . . Keep good records. . . .

AMA in Atlantic City June 16

● The 112th Annual Meeting of the American Medical Association will be held in Atlantic City, New Jersey, June 16-20. It is expected that some 15,000 physicians will attend and that total attendance may set a new record.

It will be the 17th time that the AMA has met in Atlantic City since 1900. This year the Traymore Hotel and the New Colony Motel will serve as joint headquarters.

Highlights of the meeting will include sessions of the AMA House of Delegates, scientific and industrial exhibits and scientific sessions. A number of special programs are planned. See the AMA publications for hotel reservation forms as listed in the AMA News and AMA Journal.

AMA Meetings

● Following are the dates and places of the 1963-64-65 AMA Annual Meetings and the Clinical Meetings:

1963 Annual Meeting, Atlantic City, June 16-20
1963 Clinical Meeting, Portland, Oregon, December 1-4
1964 Annual Meeting, San Francisco, June 21-25
1964 Clinical Meeting, Miami Beach, November 29-December 2
1965 Annual Meeting, New York City, June 20-24

Are You Having Difficulty Determining Service Benefits Eligibility?

● Physicians participating in the Tennessee Plan often inquire on how best to determine the eligibility of a subscriber who might be eligible for service benefits. Reports indicate that several different methods are in use, but the one that has proved the most acceptable to both the subscriber and the doctor is for the doctor to discuss service benefits with the subscriber before the services are performed and determine from the patient if he is under the applicable income limits of the Tennessee Plan. This is in accord with the acceptable recommendation that the doctor discuss his fee with the patient in advance. The participating doctor needs to know primarily if the subscriber is under or over the applicable income limits. However, in the Tennessee Plan, there are other provisions to be met such as multiple coverage in insurance policies. Such a discussion gives the doctor opportunity to explain to the subscriber any charges he will be making for services which are not covered under the terms of the insurance policy.

Memphis School Winner in Contest

● First place in the 10th Annual Health Project Contest was awarded to the Biology Club of the Whitehaven High School, Memphis, for their entry entitled "Fly Eradication." A check for $500, along with a Certificate of Merit, will be presented to three representatives of the Club, at the President's Banquet in Knoxville, April 8.

Public Service

THE TENNESSEE TEN



Members of the TSMA delegation to Washington attended a breakfast in the Pan-American Room of the Statler-Hilton Hotel with members of AMA's Washington Office. Seated at the first table L to R: Mr. Bill Ramsey, AMA, Chicago; Mr. Jim Foristel, AMA, Washington; Dr. A. Roy Tyrer, Memphis; Mr. J. E. Ballentine, TSMA, Nashville; Dr. James T. Callis, Crossville; Dr. Tom E. Nesbitt, Nashville. 2nd row: Mr. Harold Slater, AMA, Washington; Dr. W. P. Hutcherson, Chattanooga; Mr. Cecil Dixon, AMA, Washington; Dr. R. N. Sadler, Nashville; Dr. J. Kelley Avery, Union City. Standing: Dr. Wm. J Sheridan, Chattanocga; Dr Roy Lester, AMA, Washington Office Manager. 2nd table: left side—Dr. Oscar McCallum, Henderson; Dr. John H. Burkhart, Knoxville; Mr. J. E. Ferguson, THA, Knoxville; Mr. Gene Kidd, THA, Nashville; Mr. A. G. Dierks, THA, Memphis. Right Side: Dr. Harmon L. Monroe, Erwin; Dr. K. M. Kressenberg, Pulaski; Dr. Robert M. Finks, Nashville; Dr. M. F. Langston, Chattanooga; Mr. Hadley Williams, TSMA, Nashville.

Highlights of Washington PR Trip

● A group of 19, including 13 physicians, 3 TSMA staff members, and 3 Tennessee hospital administrators, traveled to Washington, D.C., March 7, to meet with the Tennessee congressional delegation in an effort to bring about a warmer and closer relationship between the medical profession and the senators and representatives from Tennessee.

Members of the group began the day with a breakfast at the Statler Hilton Hotel, with members of the AMA Washington Office. Dr. Roy Lester, Manager, AMA Washington Office, and Mr. Jim Foristel, Field Representative, Washington Office, briefed the delegation on topics to be discussed with our congressmen.

The delegation moved to the House and Senate office buildings where small groups made personal calls to each of the nine congressmen and two senator's offices. A very personal and warm reception by most of the legislators was extended to our group.

A luncheon was given by TSMA for the Tennessee congres-

sional delegation and members of the official party in the House Speakers Dining Room.

Dr. William J. Sheridan, President of TSMA, was spokesman for the visiting group. Congressman Joe L. Evins introduced each member of the Tennessee delegation, that was present, to the visitors.

Representative Howard Baker explained to the group his new bill (H.R. 4511) which he had introduced in the House only two days previous. The bill would amend the Social Security Law to allow the Kerr-Mills program (medical aid to the aged) to be administered through the public health departments of each state, instead of the welfare departments. A great deal of interest was generated by Rep. Baker's short talk and a general discussion on Kerr-Mills and its application in Tennessee to date followed.

After the luncheon, small groups were formed once more and further calls were made to offices of the legislators.

A debriefing and summary of the day's activities was held at the Washington Office of AMA late in the afternoon, after which the group disbanded to return to Tennessee.

—0—

Final Report of 83rd General Assembly

● Tennessee's 83rd General Assembly came to a close March 22nd. Important legislation of interest to members of TSMA acted upon during the past 3 months included:

1. The Good Samaritan Bill. The only bill sponsored by TSMA, it will protect physicians and others who render first aid in emergency situations, from civil liability. The bill passed the legislature and was signed by Governor Clement.
2. The Battered Child Syndrome Bill. This legislation was endorsed and supported by TSMA. The bill provides that medical personnel and institutions report any evidence of brutal treatment of children. The bill was enacted.
3. The Chiropractor Bill. Opposed vigorously by TSMA, this bill would have permitted chiropractors to be licensed in Tennessee without first having passed the Basic Science examination. This bill died in committee.
4. The Dispensing Opticians Bill. TSMA opposed the bill which restricts optical dispensers from fitting contact lenses to patient's eyes, as per doctor's orders. This legislation was passed and sent to the Governor.
5. The Electrolysis Bill. This legislation would provide for certification, licensing and registration of electrologists, subject to provisions of applicable sections of the Tennessee Code. Passed in the House, but died in Committee.
6. Bill Amending Uniform Partnership Act. This is an amendment to provide that an association of three or more professional persons may form an association to practice within the state. This bill was enacted.
7. An amendment to the Code as applying to practical nurse licenses. This bill would have allowed any person serving for a period of two or more years in the medical corps of the armed services to be issued a license upon this qualification in lieu of the required training and examination. The bill was withdrawn.
8. A State Commission on Aging bill was passed setting up the commission.
9. A bill which would require companies employing 300 or more people to secure the full-time services of a registered nurse died in committee.

of an atrial septal defect causes enlargement of both the right ventricle and main pulmonary artery segment. The following scheme has been found useful in arriving at a correct interpretation of organic systolic murmurs in acyanotic congenital and acquired valvular disease.

Lesions causing:

Left ventricular hypertrophy

1. Coarctation of aorta
2. Aortic stenosis (all forms)
3. Mitral insufficiency

Right ventricular hypertrophy

1. Pulmonary stenosis
2. Atrial septal defect
3. Left sided lesion which may develop pulmonary hypertension, i.e., mixed ventricular hypertrophy

The above differential diagnosis can be further refined by the additional features of the individual lesions enumerated, e.g., the delayed femoral pulses in coarctation, the anacrotic pulse in aortic stenosis, the wide fixed split of the second sound in atrial septal defect, and the giant "A" waves in the jugular phlebogram and diminished second sound in severe pulmonary stenosis.

Biventricular hypertrophy involving both right and left ventricles may be present in some lesions which will make the interpretation of physical signs difficult. This combination occurs when either a ventricular septal defect or patent ductus arteriosus develops or has co-existing pulmonary hy-

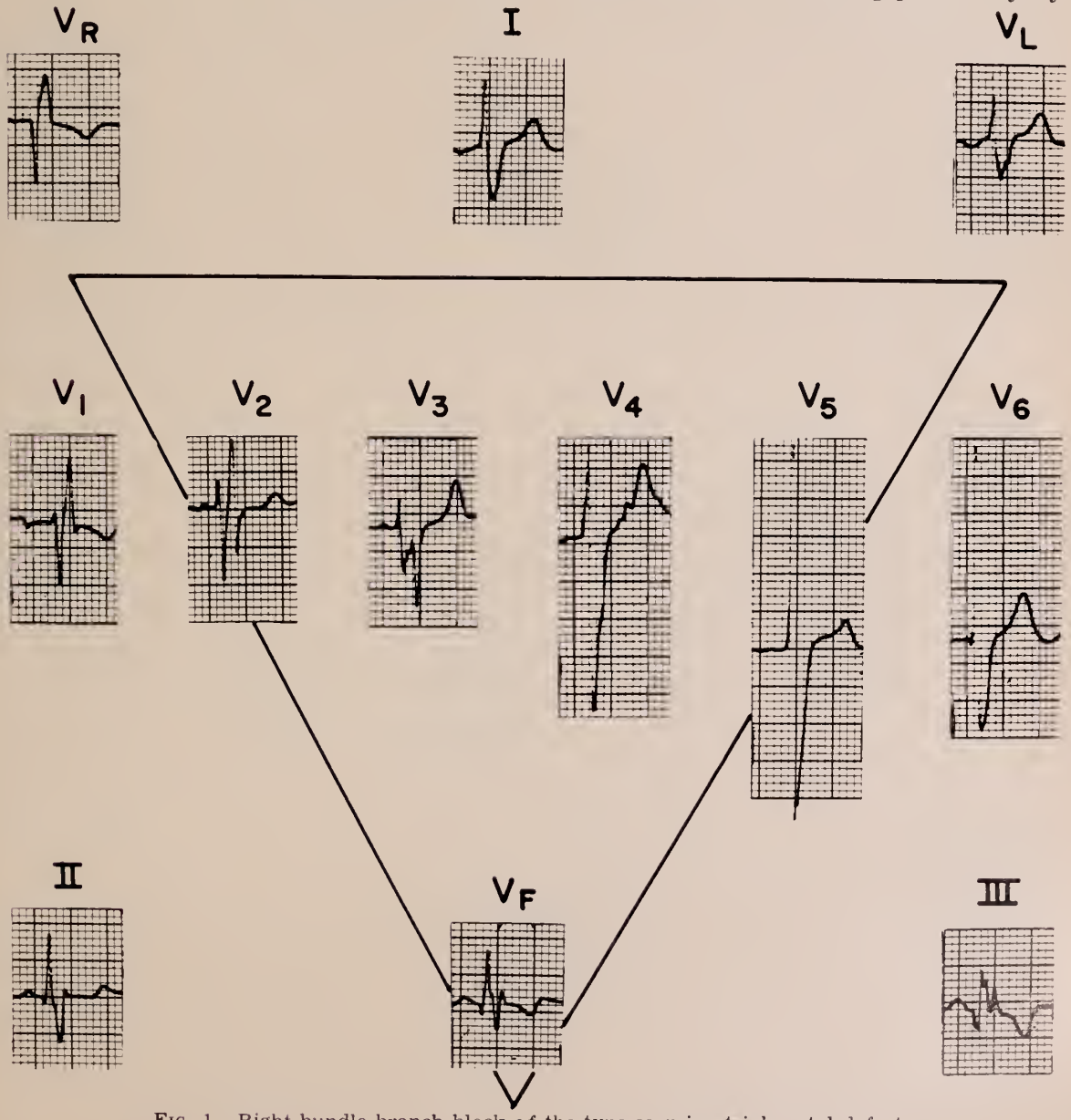


FIG. 1. Right bundle branch block of the type seen in atrial septal defect.

pertension. Because of the reduction in the left to right shunt in diastole the continuous murmur of the typical patent ductus arteriosus becomes systolic in time and may be impossible to distinguish from that of a ventricular septal defect. A low accentuated pulmonary component of the second sound with, at times, a short diastolic murmur of relative pulmonary incompetence may alert the observer to this combined ventricular enlargement.

Of the conditions previously listed, coarctation of the aorta, pulmonary stenosis and atrial septal defect should be repaired if symptoms justify. Of the remaining three conditions, aortic stenosis, mitral insufficiency and ventricular septal defect, much variation of opinion still remains. Severe aortic stenosis usually of an advanced calcific variety represents a desperate life-threatening situation and the surgical mortality reflects the absence of a satisfactory solution of this condition. The only logical approach to mitral insufficiency rests in the insertion of an artificial valve prosthesis. The natural history of such foreign substances implanted in the heart is eagerly awaited especially as the initial results from the insertion of the Starr valve appear encouraging.

More and more moderation is influencing the management of ventricular septal defect as many operations in the past must now be considered inopportune. Surgery is now advocated only when uncontrollable cardiac failure with large defects co-exist

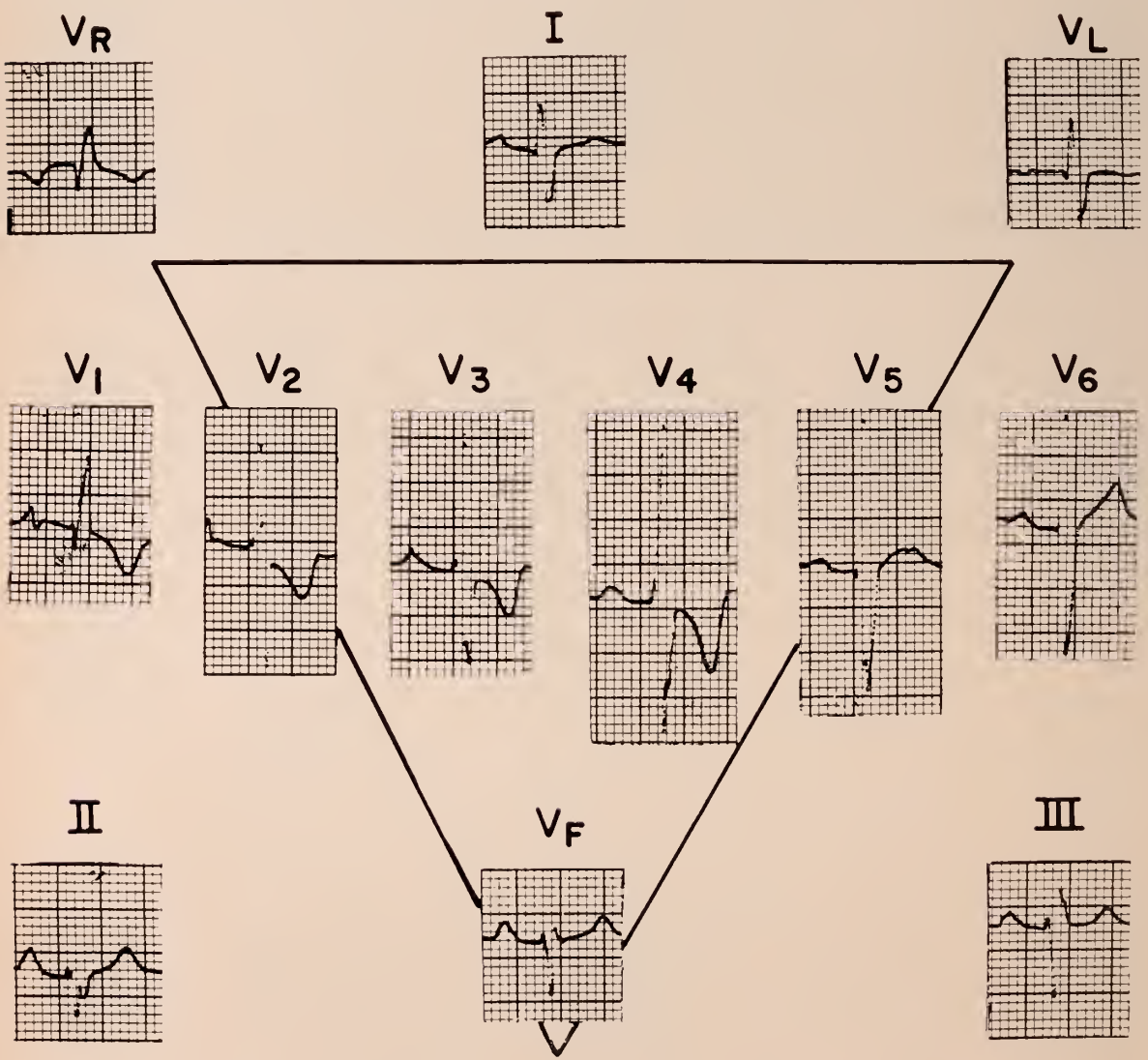


FIG. 2. Right bundle branch block with left axis deviation (divergent major deflections in Leads 1 and 3) seen in ostrium primum type atrial septal defect.

in early infancy. The small defects in adults are relatively harmless and only those patients with large left to right shunts or documented progressive pulmonary vascular resistance should be repaired.

Mention should be made of the previous efforts to distinguish between organic and functional systolic murmurs by their timing, intensity and pitch. Such discrimination should continue, but in this pragmatic age a lesion producing little or no ventricular hypertrophy must be considered as hemodynamically inconsequential. While it remains as such, conservative observation and penicillin prophylaxis (if rheumatic in origin) is adequate treatment.

The phonocardiographic classification of systolic murmurs into ejection and regurgitant varieties is helpful in understanding some basic mechanisms in sound production. It is not always a mutually exclusive classification as the human ear and the response characteristic of the phonocardiogram are unable with absolute certainty to make such a clearcut distinction.

B. *Diastolic Murmurs:* Diastolic murmurs are easier to differentiate and frequently have a more serious significance than systolic murmurs. The surgical repair of aortic insufficiency is improving and soon more detailed attention must be paid to the clinical features of this lesion. An accurate

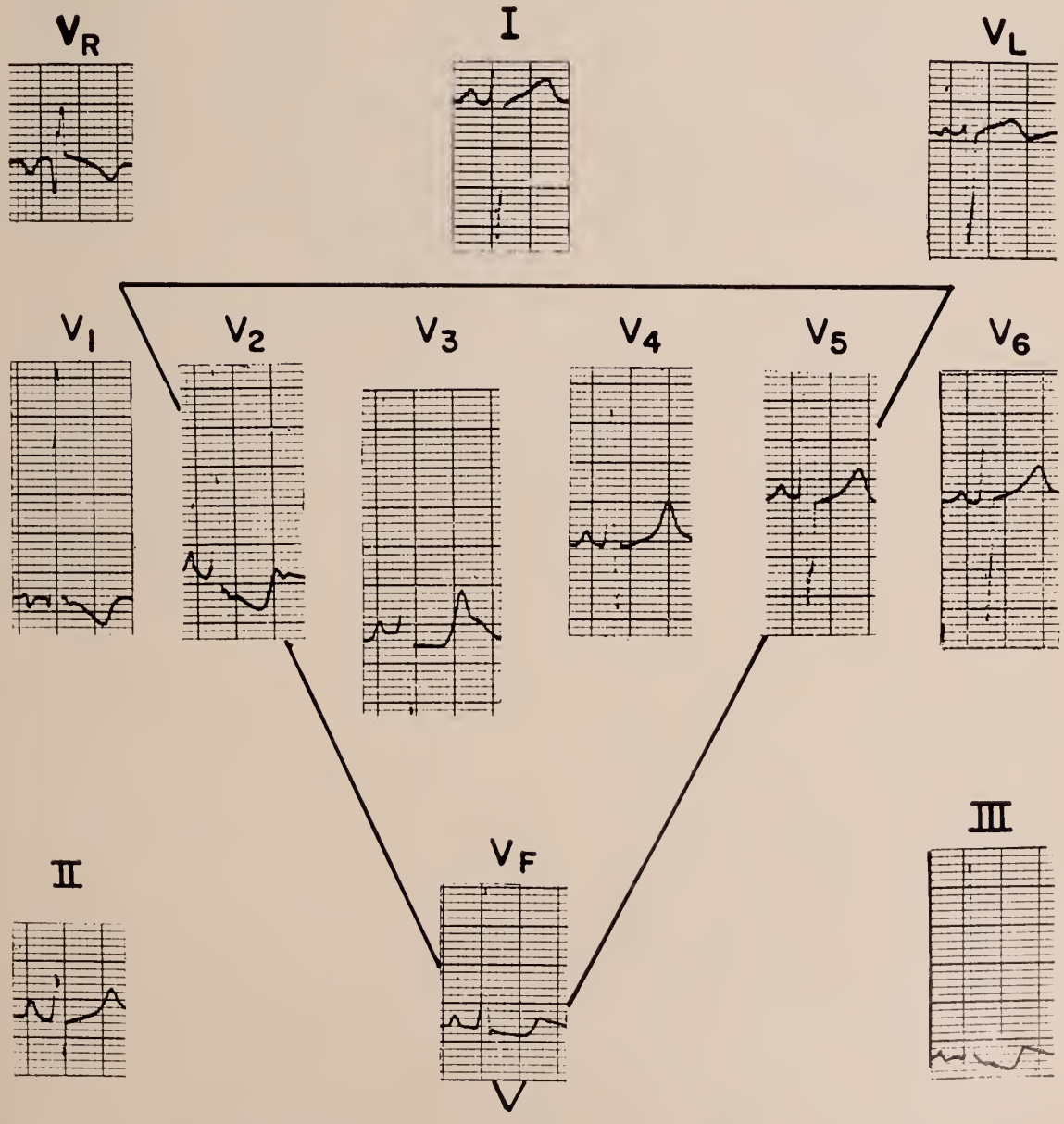


Fig. 3. Right ventricular hypertrophy—pulmonary stenosis or advanced pulmonary hypertension.

method of quantitation of valvular reflux is still required. Reliable clinical correlation cannot be made until this is achieved. Cineangiocardiography provides valuable information of the involved cusps providing pictures from which only a rough quantitative analysis can be made.

Considerable clinical debate takes place between pulmonary and aortic incompetence. This difficulty may be reconciled if (1) the greater relative frequency or pathologically proven aortic to pulmonary insufficiency is recalled, and (2) the almost constant association of pulmonary insufficiency with extreme pulmonary hypertension (the physical signs of which are readily apparent). Rare congenital fenestrations of a pulmonary cusp occur in a normotensive pulmonary circulation.

A continuous murmur heard more especially at the base of the heart should arouse interest of surgical correction. Several important questions must always be answered before a diagnosis of patent ductus arteriosus is made.

(1) Have the other causes of a continuous murmur been excluded?

(2) Is this an uncomplicated lesion and not part of a more complex abnormality in which the patent ductus is a life sustaining mechanism?

Of the other causes of a continuous murmur the following should be excluded:

(1) A venous hum arising in the jugular vein system—at times of considerable intensity in a hyperkinetic and overactive circulation. This is a normal physiologic variant and the intensity varies with neck movement and internal jugular compression.

(2) Bronchial arterial collaterals—heard both anteriorly and in the interscapular region posteriorly. This compensatory circulation develops prominently with truncus arteriosus or pulmonary atresia. Its extent may be so great that the central cyanosis of these conditions may be overlooked clinically.

(3) Aorticopulmonary window defects and ruptured sinuses of Valsalva into either right atrium or ventricle. Continuous murmurs in these conditions are usually louder, have coarse medium frequency components and are heard maximally in the third and fourth left parasternal interspace and at times to the right of the sternum.

(4) Anomalous pulmonary veins—a drainage from several lobes may pass through one main trunk especially on the right side and the turbulence so produced causes a typical continuous murmur.

(5) Coronary arteriovenous fistula—an abnormal coronary branch draining directly into the right atrium near the mouth of the coronary sinus. This rare abnormality is best diagnosed by retrograde aortography.

Faint continuous murmurs may arise from the collateral circulation of a coarctation of the aorta. Rarely, even the most skilled auscultation has difficulty in distinguishing a soft to-and-fro murmur of aortic incompetence from the sounds arising from a small patent ductus arteriosus. Both conditions cause early left ventricular hypertrophy and the peripheral manifestations of early aortic run-off or diminished diastolic pressure. Additional laboratory investigation may be needed to make this distinction if considered necessary.

Aorticopulmonary septal defects, ruptured sinuses of Valsalva, anomalous pulmonary veins and coronary arteriovenous fistula can all be cured by current surgical techniques. Their repair involves more elaborate methodology than for uncomplicated patent ductus and differentiation between them is essential. Patent ductus has been found in association with all common acyanotic congenital lesions and it is disappointing to discover for the first time the persistence of another significant murmur following division of the ductus.

Much has been written about the diastolic murmur of mitral stenosis and the natural history of this lesion. The murmur is unique in its individuality. The distance of the opening snap from second heart sound is a fair guide of the severity of this lesion. The presence of this snap usually denotes a valve amenable to surgical repair. The duration of the diastolic murmur indicates a persisting atrioventricular pressure gradient and therefore some index of severity.

Of all the lesions which are most frequently confused with mitral stenosis, atrial septal defect is the most common. Both conditions lead to right ventricular enlargement and atrial defect may have diastolic

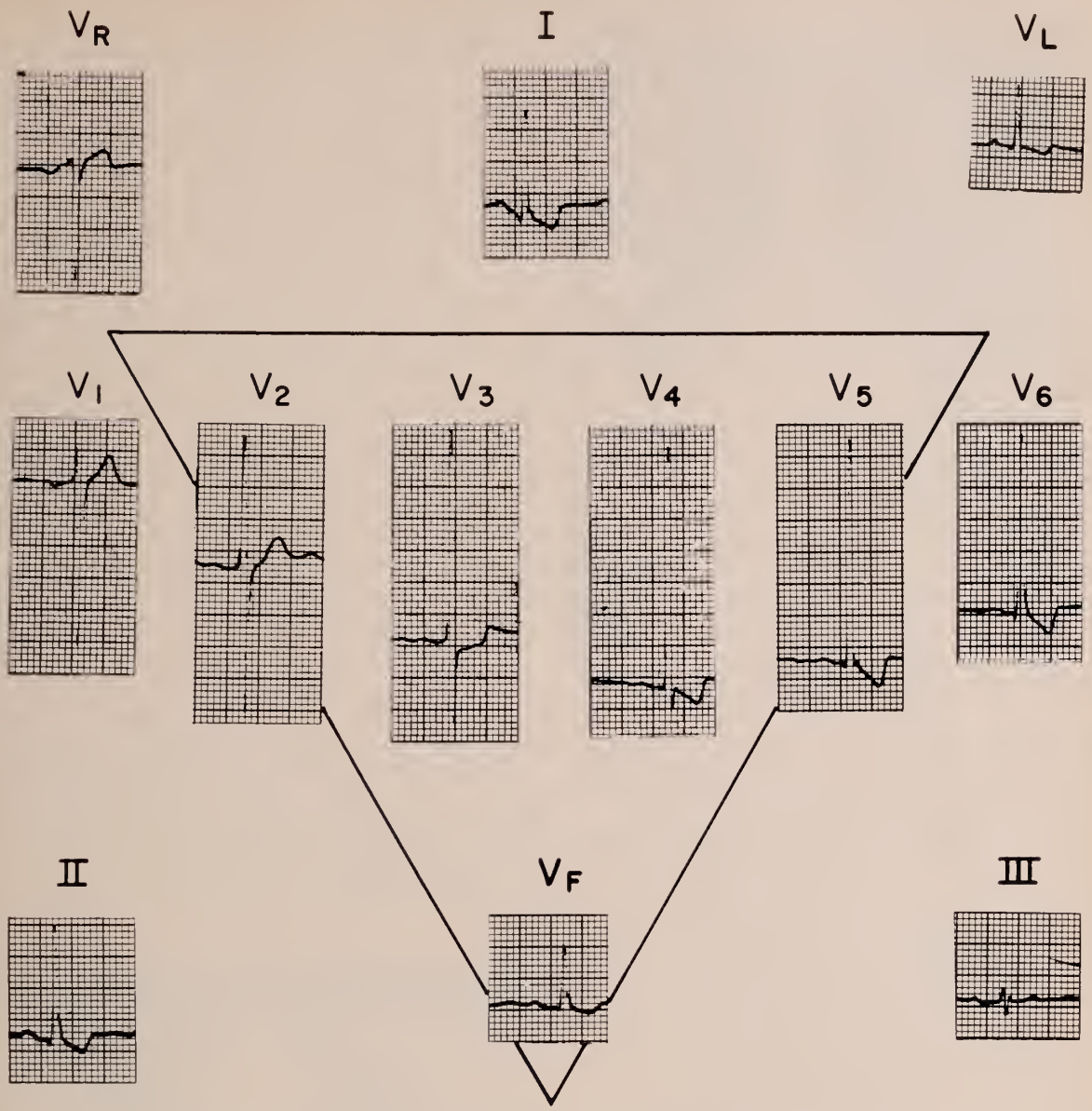


FIG. 4. Left ventricular hypertrophy and strain in advanced aortic stenosis.

murmurs heard at the mitral or tricuspid area. The tricuspid murmur arises from relative tricuspid stenosis due to an increased flow across the valve and the murmur of mitral origin may be caused from an abnormal mitral cusp, previously mentioned as a variant in ostium primum atrial defects.

Electrocardiographic Patterns

Figures 1, 2, 3, and 4 are electrocardiographic patterns which, if seen in a routine fashion, entitle further inquiry concerning the presence of unsuspected heart disease. Although coronary ischemic heart disease is the most frequent cause for right bundle branch block, its association with all forms of congenital heart disease, especially interatrial septal defect, is well known. This incomplete form or "terminal R wave vector loop" variety is found with ventricular septal defect or right ventricular hypertrophy developing secondarily to pulmonary hypertension. As such it is of help in assessing moderate grades of severity of mitral stenosis. Right bundle branch block with bizarre QRS complexes is a constant accompaniment of Ebstein's disease.

Right bundle branch block with left axis deviation (divergent R and S waves in



FIG. 5. Silhouette in an acyanotic left to right shunt (atrial septal defect) showing increased pulmonary vasculature.

Leads 1 and 3) has a greater specificity of diagnosis. Its aid to the diagnosis of the more complex varieties of atrial septal defect is undisputed especially the ostium primum form, with or without marked deformities of the mitral valve cusps or the structures derived from the primitive endocardial cushions. Patterns of right ventricular hypertrophy (tall R waves) in right ventricular precordial leads (V_1-V_3) with T wave inversion (right ventricular preponderance or "strain") in the same leads is suggestive of moderate pulmonary valve or infundibular stenosis or advanced grades of pulmonary hypertension.

Electrocardiographic evidence of chamber enlargement follows anatomic hypertrophy, and the discovery of a left ventricular hypertrophy and strain pattern (Fig. 4) in aortic stenosis may indicate advanced obstruction. Varying degrees of coronary ostial occlusion from calcium deposition producing relative coronary insufficiency makes direct electrocardiographic and hemodynamic correlations hazardous.

Roentgenographic Patterns

The abnormal x-ray cardiac silhouette may give immediate aid in diagnosis. Figure 5 shows increased pulmonary vascular markings of a type seen in an acyanotic left to right intracardiac shunt. At times it is difficult to distinguish between auricular, ventricular septal defect or patent ductus arteriosus. Such uncertainty indicates the danger of attempting to derive too much physiologic information from plain x-ray films. Such a finding on a routine chest examination demands additional detached evaluation.

Figure 6 depicts concentric hypertrophy of the left ventricle in aortic stenosis—a characteristic contour with an absolute diagnosis provided by the valve calcification. Other diagnostic features are too numerous to mention. Typical examples include notching of ribs in coarctation, the enlarged left atrium in either mitral stenosis or insufficiency, the concavity of the pulmonary outflow segment in tetralogy of Fallot, anomalies of the aortic arch, calcified pericardium, etc.

Summary

The early recognition of surgically correctible heart disease still remains the responsibility of the initial examining physician. Careful attention and appraisal of physical signs may prevent the rejection of a cardiac murmur as inconsequential. Further confirmatory help may be provided



FIG. 6. Concentric left ventricular hypertrophy with valve calcification in aortic stenosis.

from routine electrocardiographic and x-ray studies. The precise anatomic defect and its severity usually remains the responsibility of the consultant cardiological investigative laboratory. All facets of such an evaluation are equally important as the ultimate well-being of the patient will remain the prime moving force in all clinical endeavors.

Tennessee Department of Public Health
Division of Tuberculosis Control

TUBERCULOSIS FIELD SERVICE PROGRAM

1. Definition of Tuberculosis
   - A. Infection:
     1. A diagnosis of infection is made on the basis of a reaction to tuberculin (10 mm. or more to 10 T.U.) without x-ray or clinical evidence of disease.
   - B. Disease:
     1. Presumptive diagnosis
        a. For a presumptive diagnosis of disease, there should be a tuberculin reaction plus x-ray and/or clinical evidence or tubercule bacilli otherwise demonstrated.
     2. Positive diagnosis
        a. For a definite diagnosis of disease, tubercle bacilli must be demonstrated on culture.
2. Classification of Tuberculosis*
   - A. Type:
     1. Primary
        a. Infection
        b. Disease
     2. Reinfection disease
        (This is extended primary disease or reactivated primary disease (endogenous), or superimposed infection from outside on existing primary disease (exogenous).
        a. Minimal
        b. Moderately advanced
        c. Far advanced
   - B. Clinical Activity:
     1. Active
     2. Probably active
     3. Probably inactive
     4. Inactive
3. Tuberculin Test Outside of Hospital (Extent of Use)
   (This test is assuming an increasingly important role in tuberculosis control.)
   - A. Type of Test:
     1. Routine tests should be done with the intradermal test (Mantoux) using 1/10 cc. of 1-1000 dilution of O.T. (equals 10 T.U.)
     2. Mass testing may be done with the Heaf or Tine methods with x-ray of positive reactors. Positive reactors should be retested with the Mantoux test before treatment is given.
   - B. Priority for Testing:
     1. All tuberculosis suspects.
     2. All old cases of presumptive tuberculosis, if not previously tested.
     3. All contacts (after 3 months of age) of known cases of tuberculosis with preference given younger age groups.
     4. All children over 3 months of age examined in clinics.
     5. First grade in grammar school and tenth grade in high school and all school personnel annually, if negative reactors.
     6. Large groups, such as entire schools, industrial plants, institutions, etc., should be skin tested with x-ray of positive reactors instead of x-raying entire group.
   - C. Interpretation of Tuberculin Test:
     1. No report of negative is to be made except where there is no induration. Diameter of induration to be recorded in mm. State type of test used and dosage.
     2. Significance of reaction
        a. 10 mm. or more induration indicates past or present tuberculous infection.
        b. 5-9 mm. may or may not be significant, depending upon age of patient, general condition of patient, corticosteroid drug therapy, etc. Generally, these mild reactions should be repeated.
   - D. Retest:
     1. Negative reactors not known to be in contact with active case; annually, if practical.
     2. Negative reactors in contact with an active case of tuberculosis should be retested at 3 month intervals. If contact is broken, the test should be repeated at the end of the first 3 months and annually, thereafter.
     3. Mild reactors (5-9 mm.) should be retested in about 3 months, if there is no other definite evidence of active infection or tuberculous disease.
     4. Reactors of 10 mm. or more should not be retested unless there is a specific reason, such as, question of time, methods or degree of previous reaction.
4. Sputum Examinations (On Out-patient Basis)
   - A. Smear:
     1. All suspects.
     2. As follow-up on proven cases as directed by Field Service Office or private physicians.
   - B. Culture:
     1. Should be made on negative smears when pulmonary pathology persists.
     2. Post-hospital cases should have sputum cultures made at about 2 to 3 months after discharge, or as directed by the hospital staff on the discharge summary.
     3. All active cases of tuberculosis being treated at home should have routine sputum cultures, at least every 6 months.

*Based upon "Diagnostic Standards and Classification of Tuberculosis," 1961 Edition published by the National Tuberculosis Association.

(Continued on page 147)

CLINICAL NOTES FROM THE TENNESSEE HEART ASSOCIATION

PRIMARY ALDOSTERONISM

RALPH F. MORTON, M.D.*
Memphis, Tenn.

In 1955, Conn[1,2] described another disease to be considered in the differential diagnosis of hypertension. This disease which he called primary aldosteronism originates in the adrenal gland with the overproduction of aldosterone, the primary mineralocorticoid secreted by the adrenal glands. Excessive secretion of aldosterone can be attributed to primary adrenal disease or to some extra-adrenal problem (nephrosis, cardiac disease with congestive heart failure, decompensated hepatic cirrhosis, eclampsia) which, in turn, induces secondary secretion of the hormone. Primary aldosteronism occurs as a result of adenoma, carcinoma or hyperplasia of the adrenal glands. Approximately three-fourths of patients with this disease have a solitary adrenal adenoma.

Symptoms of excessive secretion of aldosterone are related to electrolyte disturbance (hypopotassemia and alkalosis) and hypertension. Muscular weakness, with periodic attacks at times progressing to paralysis, occurs though muscles supplied by cranial nerves are usually spared. About two-thirds of the patients have paresthesias. Tetany, with positive Chvostek and/or Trousseau signs, is frequent. Inasmuch as the kidneys' concentrating ability is impaired as a result of potassium deficiency, polyuria and polydipsia may be present. Hypertension is usually benign with both systolic and diastolic elevations, except in juvenile cases which often present with malignant hypertension. The usual manifestations of headache, cardiac enlargement with electrocardiographic abnormalities and hypertensive retinopathy may be present. In the absence of congestive heart failure, severe renal vascular changes or other pre-existing local abnormalities of the extremities, edema is usually absent.

Diagnosis of primary aldosteronism is based on a typical history, the demonstration of excess aldosterone secretion, and detection of the typical disturbance in electrolyte metabolism resulting from hypersecretion of the hormone. The most accurate methods of demonstrating aldosterone secretion involve special radioactive techniques or direct measure of urinary levels for a twenty-four hour period. In normal individuals the twenty-four hour excretion of urinary aldosterone is less than 10 mcg. Inasmuch as the methods for demonstrating excess secretion of aldosterone require special techniques and equipment, they may not be available to most physicians except at great expense. It may, therefore, be more practical to demonstrate the physiologic effects of inappropriate secretion of the mineralocorticoid.[3] The patient should be placed on a liberal sodium intake (also avoiding diuretics during the study period) for several days, and then the twenty-four hour urinary excretion of potassium and the serum potassium should be determined. In a typical case the loss of urinary potassium will be high and the serum levels will be low. Serum sodium is usually elevated though it may be within a normal range. It is possible to demonstrate low levels of sodium in samples of sweat and saliva. The serum CO_2 combining power and blood pH are elevated, and total serum calcium is normal. Urinary excretion of 17-hydroxycorticoids and 17-ketosteroids is normal. The urine is rather consistently alkaline though it may be neutral in reaction. Mild proteinuria may be present. The patient will have hyposthenuria which is unresponsive to pitression. Plasma volume is increased because of fixation of extracellular fluid volume averaging 30 to 50% above the predicted normal. The spirolactone test may be helpful in confirming the diagnosis. After at least two successive fasting serum potassium levels have been determined, the patient is given spirolactone 300 mg. four times daily for three days. At this time, another fasting serum potassium level is obtained. If hyperaldosteronism is present the serum potassium will rise from a low level toward normal. At times, one may find evidence of an adrenal cortical tumor by various radiographic procedures, though these studies are of little value because such tumors are usually quite small.

At the present time the treatment of pri-

*From the Department of Medicine, University of Tennessee College of Medicine, Memphis, Tenn.

mary aldosteronism is surgical. Operation should be deferred, however, until the stores of body potassium have been replaced by administering spirolactone and adequate potassium for at least a week.

References

1. Conn, J. W.: Painting Background; Primary Aldosteronism; A New Clinical Syndrome, J. Lab. & Clin. Med. 45:3, 1955.

2. Conn, J. W.: Aldosteronism and Hypertension, Arch. Int. Med. 107:813, 1961.

3. Biglieri, E. G., and Forsham, P. H.: Studies on the Expanded Extracellular Fluid and the Response to Various Stimuli in Primary Aldosteronism, Am. J. Med. 30:564, 1961.

(Continued from page 145)

More frequent examinations might be requested on special patients.

4. All cases of tuberculosis, even though apparently inactive, with residual x-ray evidence of disease and considered subject to relapse, should have at least one sputum culture made annually.
5. Drug sensitivity test may be done as indicated (by tuberculosis hospital laboratories).

5. Diagnosis (Requirements)
   - A. Primary Infection:
     1. Active
        - a. Reaction to tuberculin without x-ray or clinical evidence of disease in patients below 4 years of age and recent converters at any age (converted during last 12 months).
     2. Activity undetermined
        - a. All individuals above 4 years of age and not a recent converter, tested for tuberculosis the first time and found to have a reaction to tuberculin without x-ray or clinical evidence of disease.
     3. Inactive
        - a. This cannot be definitely determined, but tuberculin reactors who have been known to have this reaction for more than one year without clinical or x-ray evidence of disease might, generally, be considered in this category.
   - B. Primary Disease:
     1. Active
        - a. Tuberculin reaction plus x-ray and/or clinical evidence of activity.
     2. Activity undetermined
        - a. Tuberculin reaction plus x-ray evidence but with doubtful evidence of activity on x-ray or clinical findings.
     3. Inactive
        - a. Tuberculin reaction with no activity by x-ray or clinical evidence.
   - C. Reinfection Type Pulmonary Tuberculosis:
     1. Presumptive diagnosis
        - a. Clinical and/or x-ray evidence with a reaction to tuberculin.
     2. Positive diagnosis
        - a. Positive culture or tubercle bacilli otherwise demonstrated.
6. Reportable Cases (Requirements)
   - A. All cases diagnosed as primary active *disease* and all reinfection type disease, either active or inactive. (Active primary *infection* not to be reported.)
7. Follow-up X-ray Examination
   - A. Cases of Proven and Presumptive Disease:
     1. Active or probably active cases should be re-examined according to recommendation of the hospital, the Field Service or the private physician, usually 2-3 month intervals.
     2. Inactive cases should be examined at least once each year for their lifetime.
   - B. Active Primary Infection:
     1. Routine x-ray at 6 month intervals unless otherwise specified by Field Service or private physician.
   - C. Tuberculosis Suspects:
     1. After additional information has been obtained, such as, tuberculin test, sputum examinations and significant history (usually one month or less).
   - D. Non-tuberculous Chest Condition:
     1. Only as recommended by Field Service clinician or private physician.
8. Mass X-ray Surveys
   - A. Public Surveys:
     1. Discourage to the point of discontinuing the so-called public mass x-ray surveys, except under special circumstances approved by the Division of Tuberculosis Control.
   - B. Industrial Surveys:
     1. If possible, limit this to tuberculin reactors of more than 5 mm.
     2. New and selected industries might be x-rayed without tuberculin test, if testing is not practical. This must be approved by the Division of Tuberculosis Control.
   - C. Schools:
     1. X-ray all tuberculin reactors with a reaction of more than 5 mm. This includes teachers, bus drivers and other school personnel.
   - D. Special Groups:
     1. Migrant laborers upon special request (without tuberculin test).
     2. General hospitals should be encouraged to make routine x-rays on in-patients, out-patients and employees.
9. Chemotherapeutic Guide for Out-Patients*
   - A. Mandatory: (usually two drugs—INH and PAS)
     1. Patients discharged from the hospital who have not completed their full course of treatment (A.M.A.'s included).

*Based upon a statement by the Committee on Therapy, ATS. Am. Rev. Resp. Dis., 84:609, Oct. 1961.

(Continued on page 151)

CLINICOPATHOLOGIC CONFERENCE

Thayer Veterans Administration Hospital*

Strangulated Small Intestine

James A. O'Neill, Jr., M.D. and Charles F. Zukoski, M.D.

A 68 year old married Negro male music teacher entered the hospital for the second time because of progressive mental deterioration.

It was the opinion of those who cared for him that his difficulties with mentation were getting worse for several years. One year previously, the patient had been admitted because of confusion and disorientation. He was able to ambulate and to feed himself, but it was thought that otherwise he was incompetent. He was occasionally incontinent, and there was a mild right hemiparesis.

Physical findings on that first admission included a B.P. of 200/90 which gradually reverted to 136/80. There was a short, blowing, apical systolic murmur and also a rough Grade II systolic murmur in the aortic area. There was mild pretibial edema. The abdomen at that time was normal except for marked obesity and there was a large, easily-reducible right inguinal hernia which descended into the scrotum. The patient gradually improved and was discharged to his home for custodial care after 125 days of hospitalization.

The patient had no new difficulties until 2 weeks prior to this admission when he began to become more disoriented and presented more of a nursing problem. When he declined food he was brought to the hospital. There had been no neurologic manifestations and the urinary incontinence had not increased in frequency. There was no history of seizures.

Physical examination on admission revealed an obese, semicomatose, Negro man. The B.P. was 150/80, P. 108 and regular, R. were 32, and T. 103°F. The skin was warm and moist. Fundoscopic examination revealed mild arteriovenous nicking. The pupils were round, regular and equal and reacted to light. Examination of the ears, nose and throat was negative except for a dry tongue. The neck veins were flat. A Grade II systolic murmur was heard over the precordium; it did not radiate. There was tachypnea; and coarse expiratory rales were heard on both sides; both inspiratory and expiratory rales were present at the left base posteriorly. There was some dullness to percussion at the right base; the left chest was clear to percussion. Neither organs nor masses were palpable in the abdomen; there was no tenderness. A large incarcerated right inguinal hernia was noted. There was no peripheral edema, and the pulses were intact. The extremities on the right were spastic with cogwheel rigidity. The left side was flaccid and there was a left facial paresis. Deep tendon reflexes were hyperactive on the right and hypoactive on the left. Babinski signs were not present. The patient reacted to painful stimuli.

Laboratory studies included a Hgb. of 14 Gm. and hematocrit of 43%. The sedimentation rate was 35 mm. The WBC. count was 21,300 with 86% neutrophils and 14% lymphocytes. Urinalysis was within normal limits. The VDRL test was positive in 2 dilutions, with a negative complement fixation test. (On the previous admission a VDRL test on both serum and spinal fluid was negative.) Electrolytes were as follows: Na 162, K 4.3, C1 128, and CO_2 28 mEq/L; BUN. was 58 and serum cholesterol was 230 mg.%. A blood sugar drawn while the patient was receiving glucose intravenously was 160 mg.%. Total proteins were 7.9 Gm. with 3.4 Gm. of albumin and 4.5 Gm. of globulin per 100 ml. Alkaline phosphatase was 10 King Armstrong Units. An EKG. was not done on this admission; on the previous admission tracings revealed left ventricular hypertrophy and ST-T wave changes suggestive of myocardial disease. A portable chest film revealed bilateral pneumonic infiltrates, greater on the right. The ascending aorta appeared wide and tortuous, and there was a marked amount of calcification in the wall of this portion of the aorta.

The patient was placed on large doses of streptomycin and penicillin intravenously and because of increasing tachypnea and a temperature of 106°; a tracheostomy was performed. However, he rapidly became hypotensive despite large doses of Levophed and had a rapid downhill course. He died approximately 28 hours after admission or 15 hours after he became hypotensive.

Discussion

DR. CHARLES F. ZUKOSKI: A differential diagnosis in this case involves the discussion of four systems of the body, the central nervous system, the respiratory, cardiovascular and the gastrointestinal systems. Taking the first of these into consideration, we are presented with a patient who had arteriosclerotic senility and there is the possibility that a recent cerebral vascular accident had occurred. Evidence of old damage to the brain was manifested by cogwheel rigidity on the right and possibly of new brain damage on the basis of flaccid paralysis on the left side. However, it is my feeling that most of these manifestations were secondary to his already existing cerebrovascular insufficiency.

We may discuss the respiratory and cardiovascular findings together. Here there are three areas of interest and they are the vascular findings, the findings in his heart,

*From The Departments of Surgery and Pathology, Veterans Administration Hospital and Vanderbilt University School of Medicine, Nashville, Tenn.

and the findings in his lungs. The cardiovascular findings included those of arteriosclerotic heart disease of long duration. This could have been aggravated by a recent coronary occlusion which might have led to acute heart failure and further hypoxia. Aneurysm of the arch of the aorta is a good possibility in this case. Aneurysms of the aortic arch have various etiologic bases and of these we must consider at least the dissecting aneurysm, the luetic and the arteriosclerotic aneurysm. The luetic types do not dissect, although the arteriosclerotic ones can. The diagnosis of an aneurysm in this case is based on the marked widening and calcification of the ascending portion of the arch of the aorta. Calcification appears to reach the area of the aortic ring on the plain chest film. It was Ambrose Pare in the late 1500's who first attracted attention to the fact that syphilis can cause aneurysms of the ascending aorta and this was further elaborated upon by Morgagni in 1761. In 1875 Welch correlated the two disease processes as we understand them today.[1] Arteriosclerotic aneurysms of the aorta are more common in the lower abdominal region and peripherally in the popliteal vessels. Calcification such as is seen in this case is more commonly seen in luetic aneurysms than in those due to arteriosclerosis.

Pulmonary embolism from an undiagnosed phlebitis at some undetermined point is always a possibility as would be embolism to the brain and possibly other areas of the body arising either from the heart or from the aortic arch.

The lungs are of interest in that pneumonia was described clinically although it did not appear to be very marked on chest x-ray at this time. In addition, pulmonary edema could account for similar findings in the chest.

Finally, we may consider the gastrointestinal findings. An incarcerated inguinal hernia was described as being present on this admission whereas this same hernia was easily reducable on his last admission one year before. No abdominal tenderness was described; no further physical findings were mentioned. No history was given to indicate when the patient had his last bowel movement, how long he had stopped eating prior to coming to the hospital, or whether there was any vomiting. There was no mention of tenderness over the incarcerated hernia, what the results of rectal examination were or what was heard on auscultation of the abdomen.

The laboratory findings of a sodium of 162 mEq/L, chlorides of 128 mEq/L, a BUN. of 58 mg.%, a total protein of 7.9 Gm. and an hematocrit of 43% are all indicative of dehydration in this patient. A dehydrated state could be accounted for by a low intestinal obstruction due to the incarcerated hernia which could have caused a large amount of fluid to accumulate in the proximal portion of the gastrointestinal tract, as if the patient had an obstruction in the region of the ileocecal valve.

In the final analysis I find that there are several good possibilities. I prefer to consider that a luetic aneurysm of the ascending portion of the aortic arch caused this patient's death, most likely by intrapericardial rupture and cardiac tampanade. I think we shall also find that he had arteriosclerotic heart disease with cerebral atrophy due to arteriosclerosis as well. My second choice as a cause of death in this man would be the incarcerated inguinal hernia. The latter could have accounted for death by having become strangulated with subsequent leakage of bloody fluid into the peritoneal cavity and also into the lumen of the gastrointestinal tract with dehydration on the basis of fluid loss into these spaces. This in turn could have lead to shock and subsequent death.

Discussion of Pathologic Findings

DR. JAMES A. O'NEILL, JR.: I think Dr. Zukoski summed up the differential diagnosis very nicely, for he considered all the essential findings in this case. At the outset we might say, however, that we believe this man died as a direct result of his hernia, although it is true that he had many other serious problems.

Gastrointestinal tract. Examination of the peritoneal cavity revealed that there was strangulation of bowel in the right inguinal hernia, and it was extremely difficult to extract the contents from the sac. The hernia included the distal 24 inches of the ileum, which were gangrenous. The lumen of this portion of the bowel was filled with blood.

On microscopic examination of the distal ileum there were multiple thromboses and early degeneration of the muscularis (Fig. 1). Only a mild infiltration of inflammatory

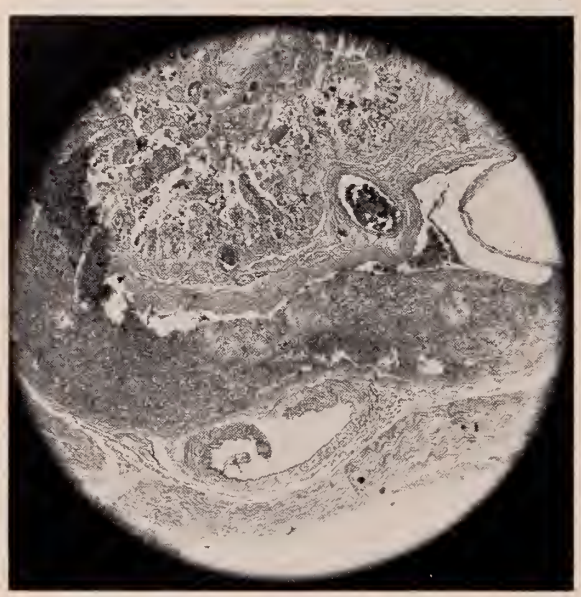


FIG. 1. Note the vascular thromboses, inflammatory cellular infiltration, and beginning muscle degeneration in this section of ileum. (x-30.)

cells was present, however, and very few of these were neutrophiles. The remainder of the gastrointestinal tract appeared somewhat dusky but viable, except for approximately - inches of mid-jejunum, which appeared dark (Fig. 2). The blood supply to the latter was completely unrelated to that going to the compromised bowel in the hernia sac. Meticulous dissection of the mesenteric vessels failed to reveal any evidence of thrombus or embolus. We are unable to account for the additional apparently compromised bowel in the region of the jejunum except to say that these changes are probably secondary to shock. As early as 1934, Doctors Brooks and Blalock demonstrated focal lesions of the duodenum and jejunum in animals that had undergone hemorrhagic shock.[2, 3] These lesions included vascular thromboses, edema, hemorrhage, and mucosal congestion. Some of their animals even had ulceration. With respect to the strangulated loop of the ileum, it has been demonstrated by numerous investigators that release of bacterial toxins is lethal in these individuals.[4, 5]

Cardiovascular system. The heart weighed 690 grams with a predominance of left ventricular hypertrophy. The coronary vessels

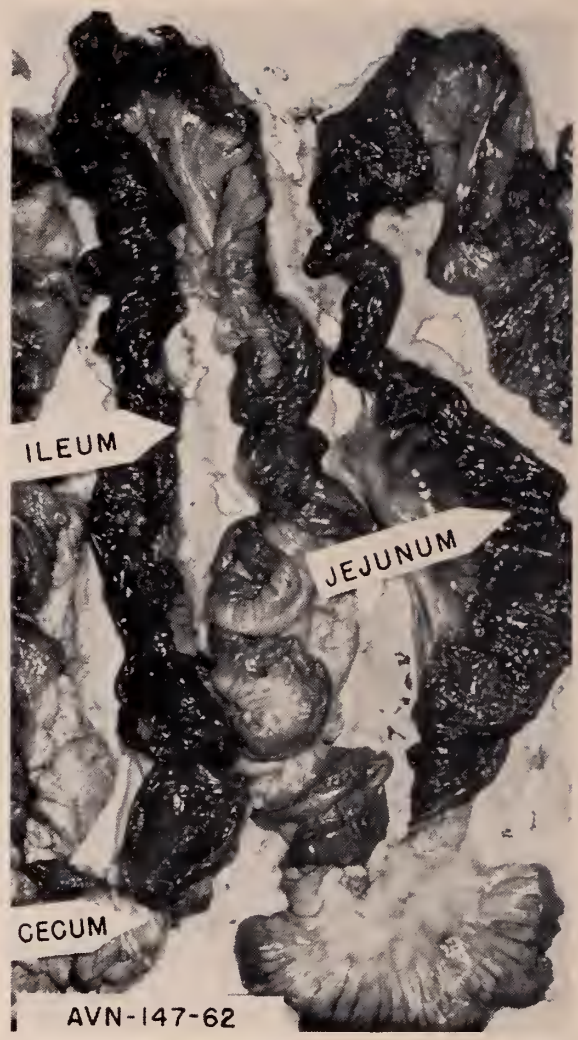


FIG 2. Note the contrast between the gangrenous ileum and other areas. Also, note the compromised segment of jejunum.

were patent and there was mild myocardial fibrosis. In addition, there was aneurysmal dilatation of mild degree of the ascending aorta with marked calcification, and there was probably aortic regurgitation. Although microscopic sections did reveal some degenerative changes in the aortic wall, there was no good evidence for dissection in this case. The degenerative changes were primarily in the intima so this was thought to be consistent with an arteriosclerotic aneurysm. There was nothing to suggest a luetic basis for this aneurysm. The descending aorta was calcified and atherosclerotic, however all of the branches of the aorta were patent, especially with respect to the mesenteric vessels.

Lungs. Both lungs weighed over 600 grams and had changes consistent with

acute pneumonia. In addition, the patient had an already existing chronic pulmonary emphysema and fibrosis. There was no evidence of pulmonary embolus.

Liver. The liver weighed 1220 grams. There was microscopic evidence of marked passive congestion as well as pericentral necrosis, which would be consistent with the hepatic changes seen in shock.

Kidneys. The kidneys had changes consistent with arteriolonephrosclerosis. The right kidney weighed 170 grams, the left 130 grams. The surfaces of the kidneys were quite granular when the capsules were stripped and sclerotic arterioles were seen on microscopic section.

Brain. The brain weighed 1200 grams. There was no evidence of hemorrhage or neoplasm. Although the vessels were atherosclerotic, they appeared to be patent. There was narrowing of the gyri and widening of the sulci, consistent with diffuse cortical atrophy. When we consider the neurologic manifestations in this case we must not forget that severe systemic insults such as seen in this patient can result in hemiplegia when these conditions are superimposed on the cerebral circulation impaired by diseased blood flow on one side of the brain.

In summary, then, we believe this patient succumbed to a combination of events. He had pneumonia and the additional insult of strangulation of a segment of small bowel was lethal. His inability to communicate was probably contributory.

References

1. Cecil, R. L. and Loeb, R. F.: A Textbook of Medicine, W. B. Saunders Co., Philadelphia, 1955, 9th Ed., p. 357.
2. Brooks, B. and Blalock, A.: Shock With Particular Reference to That Due to Hemorrhage and Trauma to Muscles, Ann. Surg. 100:728, 1934.
3. Blalock, A.: Shock, Further Studies With Particular Reference to Effects of Hemorrhage, Arch. Surg. 29:105, 1934.
4. Aird, I.: Discussion on Intestinal Strangulation, Proc. Roy. Soc. Med. 29:991, 1936.
5. Cohn, I., Jr.: Strangulation Obstruction, Charles C. Thomas, Springfield, Ill., 1961, p. 234.

(Continued from page 147)

2. Exceptional cases of active tuberculosis in whom hospitalization is not feasible. This includes extrapulmonary disease.

B. Strongly Indicated: (Isoniazid Alone)
1. Patients with previous diagnosis of tuberculosis in whom activity of disease is uncertain (absent symptoms, negative sputum).
2. Children less than four years of age with positive tuberculin reactions.
3. All children under four years of age, regardless of tuberculin test, living in household contact with active tuberculosis and positive sputum.
4. Definite tuberculin converters at any age (converted last 12 months).
5. Apparently inactive cases who have not had chemotherapy or have had inadequate chemotherapy and are considered to be in increased danger of relapse.
6. Tuberculin reactors who are to receive long term corticosteroid drugs for other disease.
7. Tuberculin reactors who have had or are to have gastric resection.
8. Unstable or severe diabetics who are tuberculin reactors.
9. Household contacts of patients with positive sputum, regardless of age, if tuberculin reactor.
10. Tuberculin reactors with pulmonary lesions in which all causes, other than tuberculosis, have been ruled out.
11. Silicosis in tuberculin reactors.

C. Discretionary: (Isoniazid Alone)
1. Children and adolescents with tuberculin reactions of 10 mm. or more.
2. Children with tuberculin reaction with severe viral infections, especially measles.
3. Pregnant women with inactive tuberculosis.
4. Individuals with severe tuberculin reactions when clinical judgment indicates advisability.

D. Recommended Daily Dosage of Isoniazid (100 mgm. tablets)

				Tablets	
Sched.	*Age*	*Weight*	*Amount*	*a.m.*	*p.m.*
A	1- 3 years	20-34 lbs.	100 mgm.	½	½
B	4- 6 years	35-49 lbs.	150 mgm.	1	½
C	7- 9 years	50-64 lbs.	200 mgm.	1	1
D	10-12 years	65-79 lbs.	250 mgm.	1½	1
E	13 & older	80 & over	300 mgm.	1½	1½

2. Duration of treatment:
   a. At least 12 months, usually 18-24 months, and frequently longer in patients with advanced disease. In every case, at least 6 months beyond all evidence of activity of disease.

E. Problem of Drug Resistant Organisms:
1. In every tuberculosis control program, such as this one, the question of the development of drug resistant Tubercle Bacilli usually arises. This is a problem that cannot be ignored but, at the same time, it must be kept in proper perspective and dealt with on a realistic basis.
2. In patients for whom home treatment should be recommended, it is believed that the risk of developing resistant tuberculosis germs is too small to justify withholding treatment from the large number of individuals who stand to derive great benefit from such treatment.

The New President



BLAND WILSON CANNON, M.D.

MEMPHIS

Bland Wilson Cannon, M.D.

75th President, Tennessee Medical Association

THE new president of the Tennessee Medical Association brings to the office of President a most unusual but effacacious combination of characteristics and assets.

Dr. Bland Wilson Cannon has the vigor of youth and the judgment of the medical statesman which he has established himself to be. He has melded the ability of the executive with the experience of leadership during this, one of medicine's most dynamic and crucial periods.

Dr. Cannon was born in Brownsville, Tennessee, April 4, 1920. He received his primary and secondary education in Haywood County, where he attended initially a one-room school with one teacher for eight grades, and at Brownsville High School and Baylor of Chattanooga.

In 1941, Dr. Cannon was awarded a B.S. Degree from Southwestern University. He was President of Alpha Tau Omega, a social fraternity, and a member of Omicron Delta Kappa, honorary fraternity.

He received an M.S. in 1943 for basic research in neurophysiology from the Institute of Neurology, Northwestern University Graduate School. In 1944 he was awarded a B.M. Degree from Northwestern University Medical School.

Dr. Cannon received his M.D. from Northwestern in 1945. Following Army service, he completed his training in neurological surgery at the Mayo Clinic and was awarded his M.S. in Neurological Surgery from the University of Minnesota in 1950.

He is a Fellow of the American College of Surgeons and a Diplomate of the American Board of Neurological Surgeons.

His professional achievements include the Presidency of the Congress of Neurological Surgeons and the Memphis and Shelby County Medical Society. He is an Assistant Professor of Surgery, University of Tennessee School of Medicine and is a member of the Harvey Cushing Society, the Neurosurgical Society of America and the Southern Neurosurgical Society.

How does such a busy man find time to engage in community activities not associated directly with the practice of medicine? Dr. Cannon, apparently has found the answer. He has served as a member of the Board of Directors of the Shelby United Neighbors; and as Chief of the Medical Division, in 1960, he spearheaded a drive which exceeded its quota by 25%.

Dr. and Mrs. Cannon, the former Miss Louise Shrader, and their five sons are members of Idlewild Presbyterian Church.

Physician . . . community leader . . . husband and father . . . all these and an intense bon vivant. Dr. Cannon likes to play golf, he is an ardent quail hunter, (he and his hunting cronies maintain a kennel at Whiteville), he loves to fish Minnesota's blue lakes each summer with his family and he is a devotee to sports generally.

This is a profile of the man who will direct the affairs of Medicine in Tennessee during the next tumultuous year . . . the man elected to be President of your Association.

President's Page



WILLIAM J. SHERIDAN, M.D.

As one approaches the terminus of the long and circuitous journey through the labyrinth of medical affairs of the past year, it appears to be propitious to pause and reflect in an attempt to impartially assess what of value may have been added or detracted by those laborious and expended efforts exerted to accomplish certain purposes and objectives which, at the time or subsequently, were considered to be indicated or meritorious in those specific and legion instances which were conceived or otherwise presented for considered evaluation and indicated action.

Subsequent events of the present year and the years to follow will be required to throw the spotlight on any presently unrecognized errors of judgment or presently submerged benefits that may have accrued during the present administration.

It is a source of satisfaction to realize that the leadership of our Association for the coming year will be delegated to the capable direction of Doctor Bland W. Cannon. His long service in the affairs of his local society as well as the experience he has gained as a member of various state committees and as a member of the Board of Trustees of our Association gives him the broad understanding and vision so necessary in the discharge of the duties as president.

In retrospect, the route travelled was at times a rather difficult one but there were many pleasant and interesting interludes along the way. Fortunately it was not a road to be travelled alone. One would certainly be amiss not to pay homage and with sincerity express heart-felt appreciation to the many dedicated members who so thoughtfully and so generously proffered their advice—advice and judgment based on experience, maturity and sagacity, and advice which was at all times acceptable, especially valuable and helpful when debatable issues arose.

Proper recognition is hereby afforded and due credit is given to the very cooperative and competent Board of Trustees; to the many committees who served so faithfully and so capably; and to our exceedingly competent Executive Director and his diligent and cooperative headquarters staff for their tireless devotion to duty.

William J. Sheridan, M. D.

President

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor and Secretary, 8210 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor and Secretary
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK

FRED B. BALLARD, JR., M.D.
BOYER M. BRADY, JR., M.D.
JOHN H. BURKHART, M.D.
W. DAVID DUNAVENT, M.D.
ROBERT P. McBURNEY, M.D.
C. HAROLD STEFFEE, M.D.
HENRY B. TURNER, M.D.
BRUCE E. WALLS, M.D.
WENDELL W. WILSON, M.D.
R. H. KAMPMEIER, M.D.

April, 1963

EDITORIAL

MACHINE VS. MAN

The two-step exercise electrocardiographic test, devised by Master in 1944 for the diagnosis of angina pectoris, has become a widely used and respected procedure. Under such circumstances, it is to be anticipated that after 20 years the weakness and also the strength of such an important test would be apparent.

There have been many reports of misleading information which has resulted from the finding of an abnormal or positive test in patients without evident heart disease. The same misinformation has been noted by the finding of a negative or normal test in patients with clearly evident classical angina pectoris. It can prove upsetting when one suggests a Master's test as a theraptutic procedure in a healthy young individual with chest pain, certainly not due to coronary artery disease but rather neurocirculatory asthenia, and the test is found to be positive.

This problem has concerned others for years and criticisms of the Master's test have mounted. Master, however, claims an accuracy of 95% for the test in detecting or excluding angina pectoris. This confusion of opinion has caused many physicians to stand by this test as a "yes" or "no" in the diagnosis of angina pectoris, without regard for the clinical picture.

A recent report[1] by a group of cardiologists from the Mount Sinai Hospital in New York therefore is of great interest. They had been impressed with the inconsistency of this exercise test, having observed classical angina pectoris in patients with a negative Master's test. On the other hand a negative test has been found in some patients with classical angina pectoris. They also found a negative test in some, and in the same patient a few days later a positive test. The technic had not been changed, and no change had transpired in the clinical condition of the patient to explain this inconsistency. They also had been impressed with the degree of influence exerted upon the interpretation of the test by the clinician who requested it, and who often had a predetermined concept of the diagnosis.

Therefore this group undertook a double-blind study in which the exercise test would be interpreted by two or three physicians with a long experience with the Master's test and without any knowledge whatsoever of the patient or the clinical history.

With such a procedure the accuracy of the test, whether a true or false positive, or a true or false negative test, was determined by relating the result of the electrocardiographic test to the independent unequivocal clinical diagnosis of angina pectoris or of noncardiac pain. If the exercise test is reliable it should certainly agree with the classical history of angina pectoris, which can usually be elicited by the proper historical technic in the hands of a capable clinician.

One-hundred patients were each studied independently by two or three physicians. The questionnaire was standard and a careful one. The diagnosis of angina pectoris or noncardiac chest pain was reached with-

out too much difficulty. Later another physician without any information relative to history or physical examinations, performed a double Master's two-step test unless chest pain or other symptoms necessitated earlier discontinuation of the test.

The test was performed as described by Master. Leads II, V-4, 5, 6, were recorded immediately, 2 minutes, and 6 minutes after completion of the exercise test. The extent of depression of the ST segment, the fact as to whether the depression was of the junction or ischemic type, the duration of the QX, QT and the calculated QX/QT fraction, and QT ratio were observed.

An ST segment depression of 0.5 mm. or more was found in 39% of the nonanginal patients; 12% of the anginal patients had a negative result. When the criterion of ST segment depression was increased to 0.75 mm. the incidence of false-positive tests decreased from 39% to 21%, but the incidence of false-negative results increased from 12% to 27%. When the interpretation of the test was based on an ST segment depression of 1.0 mm. or more, the false-positive test decreased to 8%, but again the false-negative results increased to 43%. When the ST segment was increased to 1.5 mm. there were 5% false-positive and 70% false-negative results. When the depression was 2 mm. or more, there were no false-positive tests, but an appalling incidence of 82% false-negative reports.

These critical and unfavorable results observed by these authors have also been reported by others.[2, 3]

It is to be concluded that the Master's test alone is not to be the final judge as to the presence or absence of angina pectoris. The clinical evaluation, particularly of the history, is much more apt to be the reliable diagnostic procedure. Here, again, a laboratory procedure, when put under critical eye, shows its fallibility. Again, there is a demonstration that a careful history, when put with the physical data, can often reveal facts that machines cannot ferret out. The machine age has taken over industry, but its place in the field of diagnosis in medicine is far from over-whelming.

A. W.

References

1. Friedberg, Charles K., Jaffe, Harry L., Pordy, Leon, and Chesky, Kenneth: The Two-Step Exercise Electrocardiogram, Circulation 26:1254.

2. Scharf, D., and Schaffer, A. I.: The Electrocardiographic Exercise Test, Amer. Heart J. 43: 927, 1952.

3. Mason, R. E.: The Master's Test in Patients with Coronory Heart Disease and in Normal Subjects, Heart Bull. 8:67, 1959.

DEATHS

Dr. Ebb C. Johnston, 81, Chattanooga, died March 5th in a local hospital. Dr. Johnston had been a practicing physician in Hamilton County for more than fifty years.

Dr. William Donald Gibson, 64, Knoxville, died March 6th at St. Mary's Hospital.

Dr. Howard E. Curl, 76, formerly of Oak Ridge, died February 7th in a Joplin, Missouri hospital.

Dr. Sydney H. Wood, 66, Chattanooga, died March 10th in a local hospital.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Roane-Anderson County Medical Society

The Society conducted its regular meeting in the Oak Ridge Hospital on March 26th. The speaker was Dr. Joseph J. Baker, Commissioner of Mental Health for the State of Tennessee, Nashville. Dr. Baker's subject was "Public Mental Health Programs and the Private Physician."

Memphis-Shelby County Medical Society

The monthly meeting was held on March 5th in the Lecture Hall of St. Jude Hospital in Memphis. This was a special meeting and the program consisted of a brief discussion by Dr. Donald Pinkel, medical director of St. Jude, followed by a tour of the hospital.

Knoxville Academy of Medicine

The Academy met for its monthly meeting in the auditorium of the Academy of Medicine Building on March 12th. The program consisted of a presentation by Mr. George D. Brabson, a Tax Attorney with the Standard Oil Company of Ohio. His subject was, "The Technique in Using Our Influence Against Social Legislation, Particularly the King-Anderson Type."

Chattanooga-Hamilton County Medical Society

The Society's monthly meeting was held on April 2nd in the Interstate Building auditorium where the following scientific program was presented: "Some Health and Medical Aspects of Resource Development," by Dr. O. Merton Derryberry; "Carcinoma of Lung," by Dr. John Paul Carter; and the presentation of a patient by Dr. Robert C. Robertson.

On March 5th, Dr. Milton V. Davis, clinical professor of surgery, University of Texas, Southwestern Medical School, Dallas, addressed members of the Chattanooga and Hamilton County Medical Society.

Marshall County Medical Society

The Society's monthly meeting was held on February 18th in the Medical Arts Clinic in Lewisburg. The program consisted of a tape recording of the speech made by Dr. Edward R. Annis, President-Elect of the AMA, at the meeting of the Tennessee State Medical Association Executive Officers Conference.

NATIONAL NEWS

The Month in Washington

(From the Washington Office, AMA)

The American Medical Association urged changes in the federal income tax law that would increase allowable deductions for medical expenses of older persons.

Percy E. Hopkins, M.D., Chicago, Chairman of the AMA Board of Trustees, and Francis C. Coleman, M.D., Des Moines, Iowa, Chairman of the AMA Council on Legislative Activities, outlined the Association's position before the House Ways and Means Committee.

Most of the amendments proposed by the AMA involve changes in the Internal Revenue Code affecting those 65 and over and persons contributing to their support. These changes include:

--Permission for a taxpayer to deduct, without regard to the amount of support contributed, any medical expense paid for an aged dependent.

—Reduction of the income tax liability of lower income persons among the aged who have large medical expenses.

—Permission for aged taxpayers to receive full tax benefit for medical expenses by use of the carry-forward and carry-back method, just as businesses are presently permitted to offset losses in one year against profits in another year.

—Removal of the one per cent floor on drugs and medicines for taxpayers 65 and older.

The AMA recommended the tax law changes to the House committee shortly after President Kennedy had sent to Congress a special message asking again for congressional approval of his plan that would put limited health care of the aged under Social Security.

The American Medical Association reiterated its determined opposition to such legislation.

The Administration's new health care plan generally was similar to the King-Anderson bill which the Senate rejected last year. The major change would extend the health coverage to the 2.5 million older persons not covered by Social Security.

A variable hospitalization benefit program would be available to all aged Social Security beneficiaries with costs paid from funds provided by an increase in Social Security taxes. Coverage for those not participating in Social Security programs would be paid from general tax revenues.

Beneficiaries would have the option of selecting from three coverage plans—45 days of hospitalization with no deductible; 90 days with a maximum $90 deductible; or 180 days with the insured paying a deductible equal to 2½ days of average hospital costs.

Home nursing facilities, out-patient diagnostic services and up to 240 home health-care visits a year by community visiting nurses and physical therapists also would be provided.

Administration officials estimated the cost would be $7 billion for the first five years. Insurance officials predicted the cost would be substantially higher.

Under the proposal, Social Security taxes for both employers and employes, would be increased one-quarter of one per cent. The

Social Security tax for the self-employed would be hiked two-fifths of one per cent.

President Kennedy also requested that the annual earnings base from which Social Security taxes are collected be raised to $5,200 from the present $4,800. The plan would start January 1, 1965, and require an extra $27.50 contribution yearly from both the employe and employer where the employe makes $5,200 or more. Maximum added cost to the self-employed would be $42.40 a year.

George M. Fister, M.D., President of the American Medical Association, said the Administration's new plan "proposes a government-controlled program which would force increased taxes on wage earners and employers to buy limited hospitalization, nursing home and nursing care for millions of people over 65 who are financially able to take care of themselves."

"The use of tax funds to provide benefits to an entire population group regardless of need, the wealthy and well-to-do included, is just as unwise and economically unsound today as it was last year and the year before that," Dr. Fister said.

"The American Medical Association believes in helping those who need help, using tax funds where they may be required. We believe citizens of whatever age who are able to take care of themselves should not become a burden on the taxpayers. We believe the vast majority of Americans share our view."

★

The American Medical Association endorsed the Kennedy Administration's mental health and mental retardation program.

Testifying before the Senate Committee on Labor and Public Welfare, Dr. Leo H. Bartemeier, former chairman of the AMA's Council on Mental Health and medical director of Seton Psychiatric Institute, Baltimore, said:

"We believe these measures should be implemented in such a way as to guarantee every American the very best in medical care and treatment, and we stand ready to help achieve this standard. There is little doubt that these bills are of the utmost importance in our common goal of improving the nation's mental health profile."

The AMA particularly supported the basic approach to the Administration bills, namely that the mental health program should concentrate on development of community facilities for care of patients at a local level.

"The American Medical Association heartily approves of the concern shown by the President of the United States and by this Committee over what we consider to be America's most pressing and complex health problem," Dr. Charles L. Hudson, Cleveland, Ohio, a member of the AMA Board of Trustees, said.

All witnesses, representing other health organizations and state governments, also supported the legislation. Some, including the AMA, recommended minor changes.

MEDICAL NEWS IN TENNESSEE

Nashville Surgical Society

Dr. John D. Martin, Jr. discussed surgical techniques for burns at the annual meeting of the society on March 8th at the Belle Meade Country Club. His subject was, "Problems and New Developments in Treatment of Thermal Burns." Dr. Martin is Whitehead Professor, Department of Surgery, Emory University Medical School.

John Sevier Chapter American Academy of General Practice

The John Sevier Chapter featured the theme, "Early Detection of Cancer by the General Practitioner" at its recent meeting in Elizabethton. Dr. E. L. Caudill, Jr., Elizabethton, was in charge of the program with Dr. W. G. Preas, Johnson City, presiding.

Medical School Deans Meet in Oak Ridge

The Medical Division of Oak Ridge Institute of Nuclear Studies held a conference for deans of the Southeastern medical schools in Oak Ridge on March 14-15. More than 25 representatives from regional medical schools, including many ORINS sponsoring universities and colleges, attended the meeting. The purpose of the conference was to consider mutual and scientific activities of the ORINS Medical Division and other Oak Ridge scientific facilities.

One of the featured speakers on the program was Dr. Charles L. Dunham, director

of the Atomic Energy Commission's Division of Biology and Medicine, Washington, D.C.

Surgeon General Speaks in Memphis

Surgeon General Luther L. Terry of the U. S. Public Health Service was a key speaker on April 15th at the three-day meeting of the Ninth National Conference of Interstate Milk Shipments. The meeting was conducted at the Peabody Hotel with some 300 regulatory and production persons from 42 states attending.

Meharry Medical College

A grant of $7,000 from the Middle Tennessee Heart Association has enabled a Meharry Medical College professor to continue research in arteriosclerosis. Dr. Sanford Spraragen, associate professor of medicine and co-investigator of cardio-vascular diseases in the clinical research center, received the grant.

University of Tennessee College of Medicine

A new three-story West Tennessee Cancer Clinic will be built by the University at a cost of about $445,000. It will be located next to the Cancer Research Institute.

★

Grants totaling $201,662 will enable the Colleges of Medicine and Dentistry to improve and expand their research programs. Of the total, $152,023 was allocated to medicine and the remainder to dentistry.

★

Dr. A. A. Fedinec has been awarded a $45,856 research grant from the National Institute of Neurological Diseases and Blindness of the USPHS. The funds will be used in seeking a better understanding of the cause of tetanus.

★

Nine members of the staff of the Department of Surgery presented scientific papers at the 31st annual meeting of the Southeastern Surgical Congress in Miami. They were: Drs. Harwell Wilson, James Pate, Orin Butterick, Ralph Bowers, Roger Sherman, William Lee, Robert Miles, Fenwick Chappell and Thomas Jackson. Dr. Omer Renner, Memphis surgeon, also participated in the program.

Almost 60% of the 199 graduates of the College of Medicine, from December 1961 through September 1962, remained in Tennessee for their internships. Of the Tennesseans, 98 interned in the state and 48 out-of-state. Of the 51 out-of-state graduates, 20 interned in Tennessee, and 29 outside of Tennessee.

★

Dr. William H. Lee, assistant professor of surgery, has been named to membership in the Society of University Surgeons.

★

The effects of stress on the cardiovascular system was the featured topic of an Institute for Lawyers and Doctors held on March 15th.

★

Nineteen Memphis physicians have been appointed to the faculty. They are: Drs. Iris A. Pearce and Norman Taube assistants in the Department of Medicine; Dr. Ralph Monger, assistant in the Division of Urology; Drs. Harry W. Wilson, Robert R. Hughes and Walter A. Ruch, Jr., assistants in the Department of Obstetrics and Gynecology; Drs. Walter David and M. Coyle Shea, assistants in the Division of Otolaryngology; Drs. Leon C. Hay, George B. Higley, Jr., Royce Hobby and Paul H. Williams, assistants in the Division of Orthopedic Surgery; Drs. Hugh Francis, Jr., E. Sidney Birdsong, Jr., and William R. Pridgen, assistants in the Department of Surgery; Dr. Darwood B. Hance, assistant in the Department of Radiology; and Drs. Edward Mogan and William C. Threlkeld, assistants, and Ethel A. Harrell, instructor in the Department of Pediatrics.

PERSONAL NEWS

Dr. Thomas C. Moore, Jr., Chattanooga, **Dr. Robb C. Koehn, Jr.**, Clarksville, **Dr. Floyd N. Bankston**, Knoxville, **Dr. John H. Moore, III**, Kingsport, **Dr. D. M. Sholes, Jr.**, Elizabethton, **Drs. Luther C. Ogle** and **Walter A. Ruch**, Memphis, and **Dr. Philip A. Nicholas**, Nashville, have been inducted as Fellows of the American College of Obstetricians and Gynecologists.

Dr. Robert M. Metcalfe, Crossville, has been selected as a member of the ten-man MEDICO team to go to Algiers and minister to the medical needs of the doctor-short country.

Dr. B. F. Byrd, Jr., Nashville, recently addressed the Rotary Club in Columbia. His address was entitled, "Control of Cancer."

Dr. Maurice Rawlings, Chattanooga, has been made a Fellow of the American College of Cardiology.

Dr. Walter K. Hoffman, Jr., Memphis, recently addressed the Civitan Club on the subject of "Hardening of the Arteries—A New Epidemic."

Dr. Addison B. Scoville, Jr., Nashville, has been appointed chairman of the Health and Hospital Committee of the Nashville Area Chamber of Commerce.

Dr. A. Roy Tyrer, Jr., Memphis, has been elected President of the Memphis Rotary Club.

Dr. Alvin J. Ingram, Memphis, discussed the subject, "Federal Medicare," at a meeting of the Shelby County Federation of Republican Women.

Dr. Edward Lash, Knoxville, recently addressed the Junior Chamber of Commerce of Knoxville.

Dr. James N. Thomasson, Nashville, has been appointed Chief of Staff of Baptist Hospital for 1963-64.

Dr. Eric M. Chazen, Nashville, was a recent speaker before the Goodlettsville PTA.

Dr. Robert E. Merrill, Nashville, has been named director of the Birth Defects Study Center at Vanderbilt University Hospital.

Dr. Estel P. Munsey, Jefferson City, was a guest speaker at the annual Kick-Off Heart Fund dinner held in Newport.

Dr. Truitt H. Pierce, Sneedville, has been named the Outstanding Young Man of the Year.

Dr. David McCallie, Chattanooga, recently addressed the Kiwanis Club.

Dr. Robert A. Burns, Copperhill, was recently elected Chief of the Medical Staff at the Copper Basin Hospital.

Dr. Ben Hall, Johnson City, addressed the Business and Professional Women's Club in Elizabethton.

Six Knoxville physicians have been named Assistant Medical Examiners for Knox County. They are: **Drs. A. D. Branson, Carl E. Gibson, Robert F. Lash, Robert W. Meadows, Robert B. Whittle** and **M. L. Williams.**

Dr. Blair D. Erb, Jackson, addressed members of the Heart Association in Humboldt.

ANNOUNCEMENTS

Postgraduate Course on Laboratory Studies and Interpretation at Vanderbilt University School of Medicine

The Medical School offers a one-day Postgraduate Course on Thursday, May 9, on "Laboratory Studies and Their Interpretation." It will begin at 9 a.m. at Vanderbilt University Hospital.

Consideration will be given only to the clinical application and interpretation of diagnostic tests which can be performed either in the doctor's office or in the laboratory of a general hospital, or are available in the laboratories of the State Department of Public Health. Attention will be directed to hematologic technics which will both simplify and give more accurate results in the physician's office.

The Course is acceptable for Category I credit by the American Academy of General Practice. Tuition is $15.00, which includes the luncheon. For further information address the Department of Postgraduate Instruction, Vanderbilt University School of Medicine.

Postgraduate Seminar in Psychiatry

By the Tennessee State Department of Mental Health, Central State Hospital and Vanderbilt University School of Medicine.

On Wednesday and Thursday, May 22 and 23, a course beginning at 1 p.m. of the first day and continuing through Thursday, will be given at Central State Hospital to present some aspects of treatment and management of the alcoholic and geriatric patient. Discussion of problems in these two fields is designed to give the family physician some greater familiarity with possible therapeutic and preventive opportunities. It is recognized that most of these illnesses come to the physicians' office first, and later to one of the State's facilities for the treatment of the mentally ill. The Central State Hospital feels that it has a contribution to make toward the continuing education of the physician in those areas of medicine which are especially closely related to psychiatry and, therefore, is offering this program.

Two speakers who have made notable contributions in the fields of alcoholism and geriatrics will actively participate in the program. These are, Dr. Marvin A. Block, Chairman of the Committee on Alcoholism of the American Medical Association and Dr. Maurice E. Linden, Director of Division of Mental Health of Philadelphia's Department of Public Health.

The course is acceptable for Category I credit by the American Academy of General Practice.

Registration will be held in the lobby of the Administration Building at Central State Hospital. Tuition, luncheon and dinner will be by courtesy of Central State Hospital for registrants.

Calendar of Meetings 1963

State

April 18 —Postgraduate Course, "Problems in Endocrinology," Vanderbilt University School of Medicine, Nashville.

May 9 —Postgraduate Course, "Laboratory Studies and Their Interpretation," Vanderbilt University School of Medicine, Nashville.

May 22-23—Postgraduate Seminar in Psychiatry, Central State Hospital and Vanderbilt University School of Medicine, Nashville.

Regional

April 26-28—American Association of Pathologists and Bacteriologists, Netherlands Hilton Hotel, Cincinnati, Ohio

May 3-4 —American Pediatric Society, Seaside Hotel, Atlantic City, New Jersey.

May 5-8 —Medical Association of Georgia, 109th Annual Session, Aquarama, Jekyol Island, Georgia.

May 9-12—Virginia Academy of General Practice, Annual Scientific Assembly, Hotel Jefferson, Richmond, Virginia.

May 13-15—American Gynecological Society, New Orleans, Louisiana.

May 13-16—Mississippi State Medical Association, Biloxi, Mississippi.

May 27-29—American Ophthalmological Society, The Homestead, Hot Springs, Virginia.

National

April 21-24—American College of Obstetricians and Gynecologists, New York City.

April 21-25—International College of Surgeons—North American Federation, Ambassador Hotel, Los Angeles.

April 30-May 1 —Association of American Physicians, Chalfonte-Haddon Hall, Atlantic City, New Jersey.

May 27-31—Five Day Refresher Course in Pediatrics for Pediatricians and General Practitioners, The Children's Hospital of Philadelphia, Philadelphia, Pa.

June 16-20—American Medical Association Annual Meeting, Atlantic City, N. J.

International Conference on Congenital Malformations

The Second International Conference on Congenital Malformations will be conducted July 14-19 in the Americana Hotel, New York City. Requests for information should be forwarded to the Secretary, Room 3013, 120 Broadway, New York 5, New York.

American College of Chest Physicians

The 29th Annual Meeting of the American College of Chest Physicians will be held June 13-17 at the Ambassador Hotel, Atlantic City, New Jersey. The meeting will be combined with that of the American Medical Association.

American College of Physicians

The American College of Physicians will present a postgraduate course entitled, "Physiological Aspects of Cardiopulmonary Disease," May 20-24 at the Indiana University School of Medicine, Indianapolis, Indiana. Registration forms and requests for information should be directed to the American College of Physicians, 4200 Pine Street, Philadelphia 4, Pennsylvania.

★

Meharry Medical College

Dr. Rupert E. Billingham of the Wistar Institute of Anatomy and Biology, of Philadelphia, will give a lecture at the Meharry Medical College, on May 15, 1963, at 4:00 p.m., in the Public Health Lecture Hall. Dr. Billingham is well known for his work on problems of tissue transplantation immunity.

BRAWNER HOSPITAL, INC.
(Established 1910)
2932 South Atlanta Road, Smyrna, Georgia
FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION
MODERN FACILITIES
Jas. N. Brawner, Jr., M.D.
Medical Director
Aloysius I. Miller, M.D.
Mark A. Gould, M.D.
Phone HEmlock 5-4486

PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville 5, Tennessee.

Locations Wanted

A general surgeon, 30 years of age, graduate of the Medical College of Georgia, with five years residency, is interested in locating in Tennessee City of 20,000 or over; no preference as to area; in either associate or group practice. Protestant; married; available now. LW-440

◆

A 32 year old native Tennessean, graduate of University of Tennessee School of Medicine, now completing training in surgery, is interested in practice in West or Middle Tennessee. Available June 30, 1963. LW-452

◆

A Board eligible general surgeon, with four years residency, graduate of Wisconsin University, would like clinical, assistant, associate, or industrial practice in east Tennessee city of 20,000 plus, upon completion of military service. Age 32; married; Lutheran. Available upon notice. LW-454

◆

A 30 year old Pediatrician, graduate of the University of Tennessee School of Medicine, three years residency, Board certified, now on active duty in the Navy. Would like clinical, associate or group practice in any location in Tennessee. Married; Presbyterian; available August 1963. LW-459

◆

A 29 year old Ob-Gyn, graduate of the University of Tennessee School of Medicine, completing his third year of residency, would like clinical or associate practice in town of 25,000 plus (prefers West, but will consider other sections). Married; Methodist; available July 1963. LW-460

◆

A general practitioner, with an interest in internal medicine, would like clinical or associate practice in East Tennessee city of 30,000 or less. Now in government practice, but wishes private practice. Age 29; married; Baptist; graduate of the Medical College of Georgia; one year residency. Available summer of 1963. LW-474

◆

A 28 year old general practitioner, now interning, is interested in clinical practice in East Tennessee. Will consider institutional or industrial. Married; Presbyterian; graduate of the University of Tennessee School of Medicine. Available September 1963. LW-476

◆

A 37 year old Otolaryngologist, with three years residency training, presently in the U.S. Navy, would like associate practice in any section of Tennessee of 50,000 to 500,000 population. Graduate of the University of Tennessee School of Medicine; married; Protestant; Tennessee license. Available after August 15, 1963. LW-485

◆

A 30 year old Urologist, just completing four years residency, would like clinical or associate practice in Middle Tennessee area of 2,000 to 65,000 population. Graduate Tulane University School of Medicine; married; Methodist. Available July 1964. LW-486

◆

A 61 year old General Surgeon, with extensive training and experience, would like to relocate in the south, seeking a milder climate. Graduate Harvard Medical School; Diplomate of the American Board of Surgery; married; Protestant. Would like clinical, institutional, industrial, or associate practice in any size or location of Tennessee. Available with notice. LW-487

◆

Physicians Wanted

Physician in East Tennessee community of 6,000 wishes an associate in general practice. Age 25-35, with one year internship. New, private office; examining rooms and equipment available. Hospital located in community. PW-124

◆

Southern Tennessee community of slightly over 500 in need of general practitioner. Trade area much larger. No other physician in general area. Office space and some equipment available. PW-147

◆

Small north Tennessee town in great need of physician. Approved for Sears-Roebuck Foundation assistance. No other physician in community. Medical economic survey report available upon request. PW-177

◆

One or two physicians needed in East Tennessee community of 15,000 population. Housing, office space and equipment available. Good schools, recreational facilities. Hospital 17 miles. PW-178

◆

Town located only a few miles from Tennessee line in Kentucky, needs replacement for general practitioner. Housing available; 7 room office completely equipped and furnished available. Hospital 12 miles. PW-180

◆

Physician in East Tennessee city of 200,000 needs general practitioner for assistant practice in 27 bed private hospital. One year internship desired. Office space and office equipment provided. PW-181

◆

Excellent opportunity for obstetrician or general practitioner in East Tennessee city of 25,000. Office next to hospital for lease. Will introduce. Owner will move to Florida when occupant obtained. Deferred lease payments possible. PW-183

◆

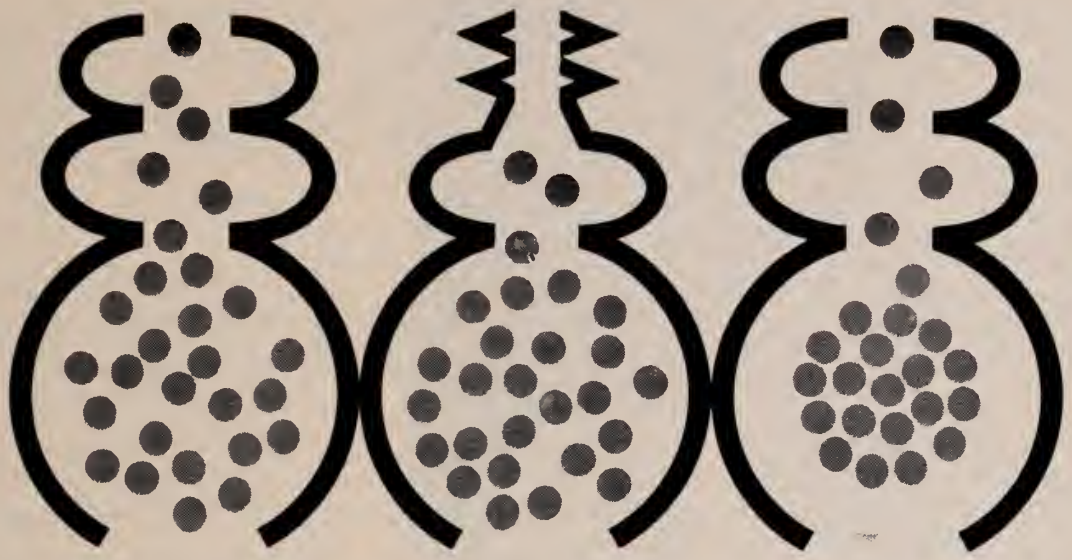
FOR SALE: practice; office; and office equipment, in Middle Tennessee town of 6,000. Excellent opportunity for young physician. PW-184

◆

Small upper east Tennessee community in need of physician to replace retired general practitioner. Approved for Sears-Roebuck Foundation assistance. Survey report available upon request. Housing and office space available. Near industrial area. PW-185

◆

Two-man partnership, in Middle Tennessee town of 7,000, wishes Internist or General Practitioner with training and interest in internal medicine, as associate. Opportunity for right man, as no other internist is in this area. Space in modern building and fairly complete diagnostic facilities are available. Hospital next door. PW-194



lowers motility | relieves cramping | stops diarrhea

LOMOTIL® Antidiarrheal tablets and liquid

(brand of diphenoxylate hydrochloride with atropine sulfate)

Traditionally the most effective means of slowing excess intestinal motility in diarrhea and so of relieving the disorder have been the opium derivatives. Now Lomotil makes available an antidiarrheal agent[1] of greater therapeutic efficiency than morphine.

By controlling hypermotility, the basic mechanical dysfunction of diarrhea, Lomotil reduces the frequency and fluidity of stools, diminishes cramping and controls diarrhea in many patients in whom other drugs have proved inadequate.

In a recent clinical report Cayer and Sohmer[2] state: "The alleviation of symptoms [with Lomotil] was usually prompt, occurring within 24 to 72 hours even in the long-standing chronic cases. . . . A surprisingly satisfactory response was obtained in 75 per cent of the patients with regional enteritis and in 63 per cent of those with ulcerative colitis, all of whom had failed to respond to other measures."

The high therapeutic efficiency of Lomotil, its safety, convenience and economy may be used to advantage in acute or chronic diarrhea.

Dosage: For *adults* the recommended initial dosage is two tablets (2.5 mg. each) three or four times daily. Maintenance dosage may be as low as two tablets daily.

Lomotil is supplied as unscored, uncoated white tablets of 2.5 mg. and as liquid containing 2.5 mg. in each 5 cc. A subtherapeutic amount of atropine sulfate (0.025 mg.) is added to each tablet and each 5 cc. of the liquid to discourage deliberate overdosage. Recommended dosage schedules should not be exceeded.

Note: Lomotil is an exempt preparation under Federal narcotic statutes.

Detailed information and directions for use in children and adults are available in Physicians' Product Brochure No. 81. G. D. Searle & Co., P. O. Box 5110, Chicago 80, Illinois.

---

1. Janssen, P. A. J., and Jageneau, A. H.: A New Series of Potent Analgesics: Dextro 2:2-Diphenyl-3-Methyl-4-Morpholino-Butyrylpyrrolidine and Related Amides. I. Chemical Structure and Pharmacological Activity, J. Pharm. Pharmacol. 9:381-400 (June) 1957.
2. Cayer, D., and Sohmer, M. F.: Long-Term Clinical Studies with a New Constipating Drug, Diphenoxylate Hydrochloride, N. Carolina Med. J. 22:600-604 (Dec.) 1961.

G. D. SEARLE & CO. *Research in the Service of Medicine*



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE MARK



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can . . 75c | Pt. bottle with dispensing can . . $2.50 | Qt. bottle with dispensing can $4.00

Plus post.

White Surgical Supply Co.

SURGICAL SUPPLIES & ACCESSORIES

515 West Church Ave. Knoxville 7, Tennessee

Telephone 3-1186

PATRONIZE

OUR

ADVERTISERS

ACCEPTED AMERICAN MEDICAL ASSN

HOMOGENIZED VITAMIN D MILK PRODUCES SOFT CURD

(400 U.S.P. Units Vitamin D Per Quart)

"A" Grade Sealtest MILK Phone AL 5-6451

Fortified Fat Free Milk

(2000 Units Vitamin A—400 Units Vitamin D)

NASHVILLE PURE MILK CO.

Trocinate®

Brand of Thiphenamil HCl.

FOR DIVERTICULITIS, MUCUS COLITIS,

IRRITATIVE DIARRHEA, IRRITATIVE URETERITIS,

BLADDER SPASM

Trocinate is a musculotropic antispasmodic with no appreciable anticholinergic action. It relieves spasms of the lower bowel and genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma. Each tablet contains 100 mgs. Trocinate HCl.

USUAL DOSAGE: 2 tablets, 4 times a day. Maintenance dosage is frequently lower.

Dispensed in bottles of 40 and 250 tablets.

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

WOULD YOUR OFFICE RENT STOP . . . IF YOU WERE HOSPITALIZED FOR SIX MONTHS?

Of course not! That's just one of the reasons why wise physicians and dentists take advantage of broad new benefits available in our "Loss of Time" policy.

We pay YOU each month when you are hospitalized or disabled.

For full details, at no obligation, simply send the coupon below.

PHYSICIANS MUTUAL INSURANCE CO.
formerly
Physicians Casualty and Health Associations
"The Doctors Company"
Insuring Physicians & Dentists for 60 years.

Physicians Mutual Insurance Company
115 So. 42nd Street
Omaha 31, Nebraska

Please send details on your "Loss of Time" policy.

NAME_____ AGE_____

ADDRESS_____

CITY_____ STATE_____



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James K. Ward, M.D.
Phones WOrth 1-1151

ß

BIRTCHER MEDICAL ELECTRONICS

CARDIOLOGY / Electrocardiograph · Cardioscope · Heartpacer® · Defibrillator · Mobile Cardiac Monitoring & Resuscitation Center

ELECTROSURGERY / The Blendtone · Hyfrecator® · Electrosectilis®

PHYSICAL THERAPY / Ultrasonics · Shortwave Diathermy · Ultraviolet · Infrared · Muscle Stimulators · Hydrotherapy



FREE 96-PAGE BOOK — JUST PUBLISHED
THE LATEST ON CLINICAL ULTRASONICS

I have a supply of the just-published "Proceedings" of the last meeting of the American Institute of Ultrasonics in Medicine. I will be happy to send you a copy...no obligation, of course. Write or call me.

HOWARD JENNINGS
P.O. Box 9039, Knoxville, Tennessee, 577-4793

Revised Plan

Increased Benefits For Accident and Sickness Available To Members of The Tennessee State Medical Association

Who Can Qualify for This Insurance

Ordinary Accident Benefit	Total Ordinary Accident and Hospital Benefit
$600.00 Per Month	$1,200.00 Per Month (3 months)

Monthly Benefits are payable from the First Day of Disability and will be paid during your entire lifetime as long as totally disabled from accident.

Sickness Benefit	Total Sickness and Hospital Benefit
$600.00 Per Month	$1,200.00 Per Month (3 months)

Sickness Monthly Benefit ten years certain if totally disabled.

General Provisions

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.00
May be written from $100.00 to $600.00 per month inclusive
Monthly Accident Benefits from First Day
Monthly Sickness Benefits from First Day
May also be issued with elimination periods, if desired
Individually NON-CANCELLABLE EXCEPT for—

- Non-Payment of Premium
- Retired from Practice
- Loss of Membership in The Tennessee State Medical Association

Guaranteed Renewable to age 70 Renewable thereafter at the option of the Company.

Sovereign States Insurance Company

1808 WEST END AVENUE
NASHVILLE, TENNESSEE

For full information without obligation, contact our Home Office, 1808 West End Avenue, Nashville

Professional Department, Sovereign States Insurance Co.

Please send complete information relative to program offered in The Tennessee Medical Journal.

NAME _____ AGE _____

ADDRESS _____ TOWN _____

"A Participating Insurance Company Underwriting the Tennessee Plan"



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

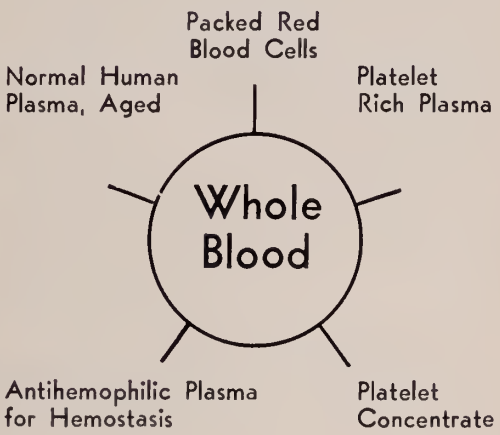
- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN
Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities
KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE



vacancy

"The direct cost for caring for the mentally ill is $1.7 billion a year. Workers who become mentally ill lose over half a billion dollars in earnings each year.

*Staff in one mental hospital recently tried an experiment with 65 patients who had been confined for an average of 13 years. They practiced the best treatment methods now known and, within six months to a year, 37 of these patients were well enough to be discharged. Only eight of the discharged patients failed to hold the gains they had made for at least a year after they left the hospital."**

Hope now, where there was no hope. Drugs which help now, where there were no known drugs which helped—even five years ago. Independent drug research is continuing in this vital area. But, should it be discontinued because the cost must somehow be reflected in the ultimate price of the new drug—if it is to be discovered? Or should the sign read, as it has throughout time in overcrowded mental institutions: "NO VACANCIES."

*U.S. Department of Health, Education and Welfare, Public Health Service Publication No. 813.

This message is brought to you on behalf of the producers of prescription products.

PHARMACEUTICAL MANUFACTURERS ASSOCIATION • 1411 K STREET, N.W. • WASHINGTON, D.C.

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

HIGHLAND HOSPITAL, INC.

FOUNDED IN 1904

ASHEVILLE, NORTH CAROLINA

Affiliated with Duke University





A nonprofit psychiatric institution, offering modern diagnostic and treatment procedures—insulin, electroshock, psychotherapy, occupational and recreational therapy—for nervous and mental disorders.
The Hospital is located in a 75-acre park, amid the scenic beauties of the Smoky Mountain Range of Western North Carolina, affording exceptional opportunity for physical and emotional rehabilitation.
The OUT-PATIENT CLINIC offers diagnostic services and therapeutic treatment for selected cases desiring non-resident care.

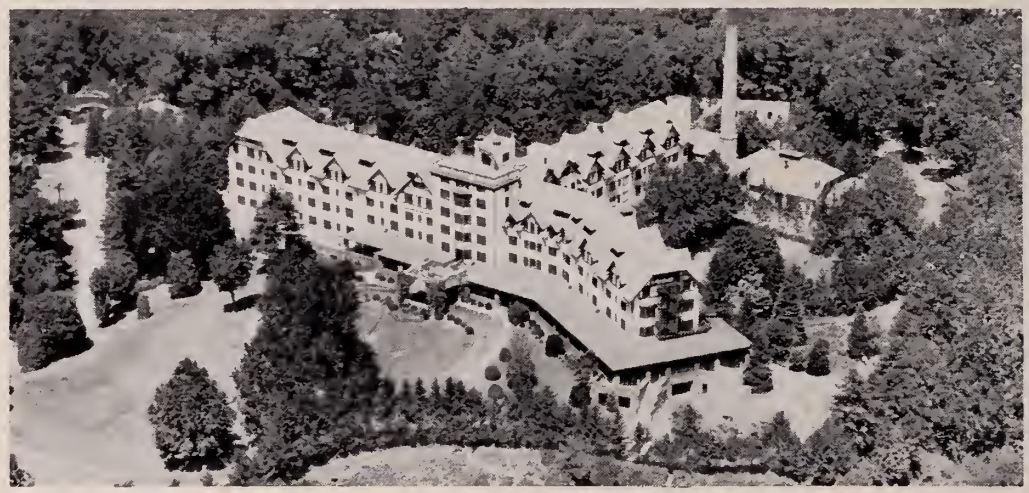
R. CHARMAN CARROLL, M.D.
Medical Director

ROBERT L. CRAIG, M.D.
Associate Medical Director

JOHN D. PATTON, M.D.
Clinical Director

APPALACHIAN HALL
Established 1916

Asheville North Carolina



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D.
ROBERT A. GRIFFIN, M.D.
MARK A. GRIFFIN, SR., M.D.
MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

Abbott Laboratories	XX, XXI
American Cyanamid Co.	VII, XXX, XXXI
Ames Co., Inc.	XLIX
Appalachian Hall	XLVIII
Arnar-Stone Laboratories, Inc.	IX
Bayer Co., The	VI
Birtcher Medical Electronics	XLIII
Blood Bank Foundation	XLV
Brawner Hospital, Inc.	Last page reading matter
Brayten Pharmaceutical Company	XXIX
Burroughs Wellcome & Co.	XXIV
City View Sanitarium	XLII
Coca-Cola	XL
Endo Laboratories	XXVII
Farringer & Company	XXVIII
First Texas Pharmaceuticals, Inc.	XXVI
Guild Opticians	XLVII
Highland Hospital, Inc.	XLVII
Hill Crest Sanitarium	XLIII
Kay Surgical, Inc.	XLV
Lily, Eli and Co.	I, XXXVIII
Mayrand, Inc., Pharmaceuticals	X
Mutual Benefit Life Ins. Co.	XXXVI
Nashville Pure Milk Co.	XL
Nashville Surgical Supply Co., Inc.	XXXV
Parke-Davis and Company	II, III
Pfizer Laboratories	XVI, XVII
Pharmaceutical Manufacturers Assn.	XLVI
Physicians Mutual Ins. Co.	XLII
Poythress, Wm. P. & Co.	VIII, XLI
Robins, A. H. Co., Inc.	Insert, XIII, XXIII
Roche Laboratories	L
St. Albans	XXXIV
Saunders, W. B., Co.	XIX
Schering	XXXVII
Searle, G. D. & Co.	XXXIX
Smith, Kline & French Laboratories	XVIII
Sovereign States Ins. Co.	XLIV
Tafel Surgical Supply Co., Inc.	XLII
Wallace Laboratories	XIV, XV, XXV, XXXII, XXXIII
White Surgical Supply Co.	XL
Winthrop Laboratories	V, XXII

neither **stasis** nor **spasm,**
nor **tension**
stays this patient
from his
appointed rounds



DECHOLIN-BB®

. . . . . especially when
UPPER G.I. COMPLAINTS
have biliary implications

Each Tablet Contains:

for biliary/intestinal **stasis** → DEHYDROCHOLIC ACID 250 mg (3¾ gr.).

for smooth-muscle **spasm** → BELLADONNA EXTRACT 10 mg. (⅙ gr.).

for nervous **tension** → BUTABARBITAL SODIUM 15 mg (¼ gr.).

Average adult dose: 1 or, if necessary, 2 tablets three times daily. **Precautions:** Observe patients periodically for increased intraocular pressure and barbiturate habituation or addiction; caution drivers against possible drowsiness. **Side effects:** Dehydrocholic acid may cause transitory diarrhea; belladonna may cause blurred vision and dry mouth. **Contraindications:** Biliary tract obstruction, acute hepatitis, glaucoma, prostatic hypertrophy. **Available:** DECHOLIN-BB, bottles of 100 tablets. **Also:** DECHOLIN® with Belladonna (dehydrocholic acid, 250 mg.; belladonna extract, 10 mg.) and DECHOLIN® (dehydrocholic acid, 250 mg.), bottles of 100 and 500 tablets.

AMES

34963

specific
for anxiety
& tension

Librium

The singular specificity of Librium in controlling anxiety and tension has proven to be an advantage in a wide range of disorders characterized by anxiety of varying degrees. Notably effective in patients whose symptoms are primarily emotional, Librium is equally valuable when organic disease is aggravated or prolonged by accompanying anxiety. Coupled with its effectiveness is an outstanding record of safety. Librium has few, if any, of the unwanted side effects associated with tranquilizers and daytime sedatives—no extrapyramidal effects, no autonomic blocking, and no dulling of mental alertness. Consult literature and dosage information, available on request, before prescribing.

the successor to the tranquilizers

LIBRIUM® Hydrochloride — 7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride



ROCHE

THE JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION

UPPER CUMBERLAND MEDICAL SOCIETY
Red Boiling Springs, Tennessee
Tuesday and Wednesday, June 18-19, 1963

MIDDLE TENNESSEE MEDICAL ASSOCIATION
Thursday, May 16, 1963
Brentwood Country Club
Franklin, Tennessee

MAY, 1963

Volume 56 **Number 5**

of Contents on Page IV
to Advertisers on Page XLVI

Simple diarrhea?

Control it with
safe / effective / economical / pleasant-tasting

Quintess®
(attapulgite compound, Lilly)

Available in 6-ounce plastic and 1-pint glass bottles.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly
362030





the patient under physiologic stress...

a prime candidate for

MYADEC®

high-potency vitamin formula with minerals

It is generally agreed that vitamin requirements are often increased after surgery, during acute or chronic stages of disease, throughout convalescence, and at other times of physiologic stress. Moreover, nutritional intake may be inadequate as a result of restricted diets. In conditions such as these, MYADEC can provide an extra measure of support. Just one capsule a day provides 9 vitamins in therapeutic potencies, plus a supplement of selected minerals normally present in body tissues. MYADEC is also useful for the prevention of vitamin deficiencies in patients whose usual diets are lacking in these important food factors.

Each MYADEC capsule contains: **Vitamins:** Cyanocobalamin—5 mcg.; Riboflavin—10 mg.; Pyridoxine hydrochloride—2 mg.; Thiamine mononitrate—10 mg.; Nicotinamide—100 mg.; Ascorbic acid—150 mg.; Vitamin A—(7.5 mg.) 25,000 units; Vitamin D—(25 mcg.) 1,000 units; *d*-alpha-tocopheryl acetate concentrate—5 I.U. **Minerals:** Iodine—0.15 mg.; Manganese—1 mg.; Cobalt—0.1 mg.; Potassium—5 mg.; Molybdenum—0.2 mg.; Iron—15 mg.; Copper—1 mg.; Zinc—1.5 mg.; Magnesium—6 mg.; Calcium—105 mg.; Phosphorus—80 mg. (Minerals supplied as potassium iodide, dibasic calcium phosphate, sodium molybdate, and the sulfates of manganese, cobalt, potassium, iron, copper, zinc, and magnesium.) 13663

Bottles of 30, 100, and 250.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

The Journal of the TENNESSEE MEDICAL ASSOCIATION

Published Monthly

By Tennessee Medical Association

OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE

Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 5

MAY, 1963

Per Year, $5.00
Single Copy, 50 Cents

Published Monthly

Contents

The Treatment of Achalasia, RICHARD O. BIGGS, M.D., Memphis, Tenn., and ROBERT E. TAYLOR, M.D., Ogden, Utah ... 163

Thyroid Disease and Diabetes Mellitus, WILLIAM LAW, M.D., Knoxville, Tenn. ... 168

Case Report

Femoral Hernia Complicated by Strangulation of a Meckel's Diverticulum, JAMES A. O'NEILL, Jr., M.D., and PANAGIOTIS N. SYMBAS, M.D., Nashville, Tenn. ... 172

Hazards of Antihypertensive and Diuretic Therapy: Hypokalemia and Hyperkalemia, CRAWFORD W. ADAMS. M.D., Nashville, Tenn. ... 175

Staff Conference ... 178

Clinicopathologic Conference ... 181

President's Letter ... 189

Editorial ... 190

Deaths ... 193

Programs and News of Medical Societies ... 193

National News ... 194

Medical News in Tennessee ... 196

Personal News ... 198

Announcements ... 199

Placement Service ... 200

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 12, Tennessee.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

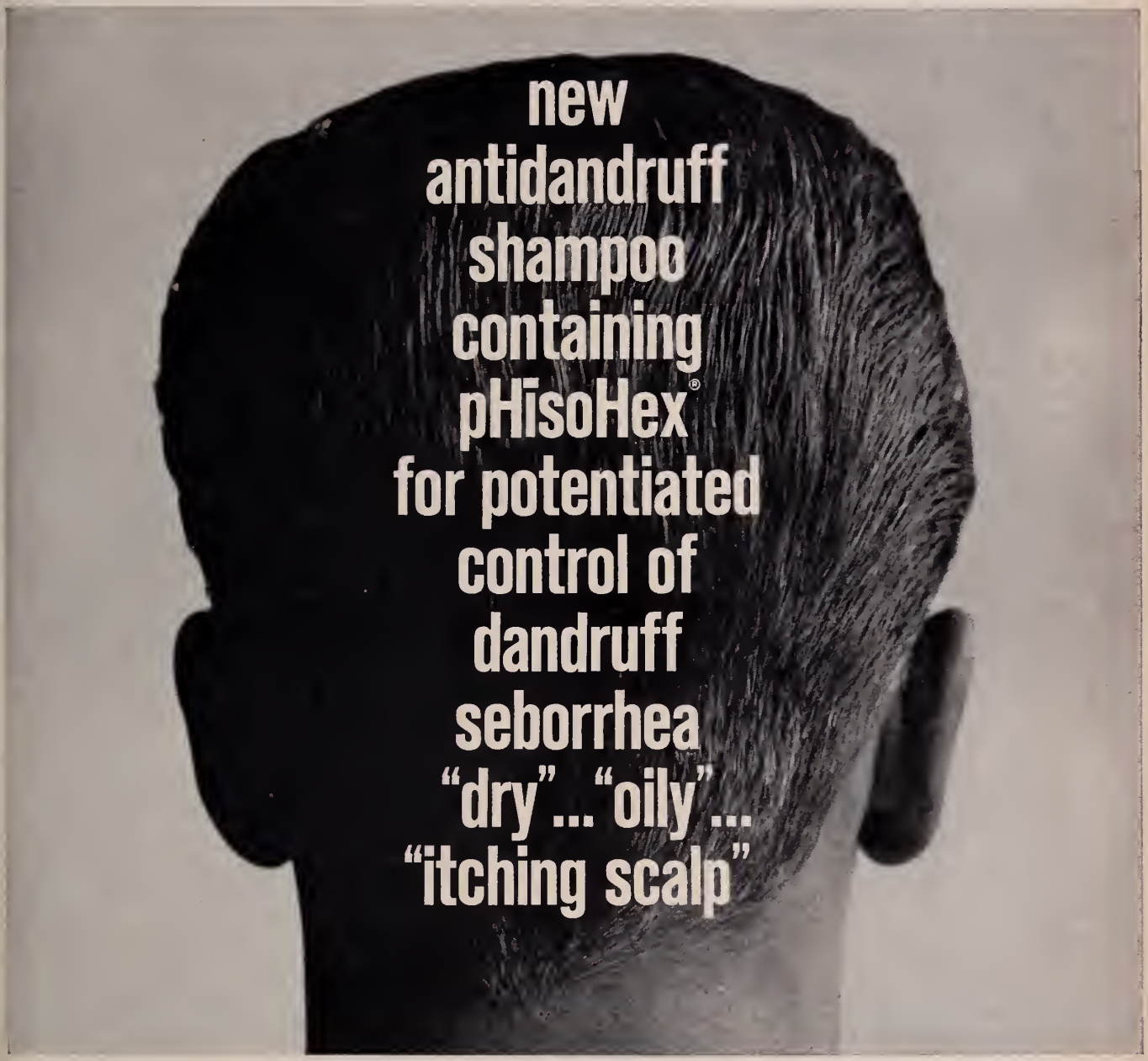
Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
R. H. KAMPMEIER, M.D., Editor
This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein
Copyright, 1963, by the Tennessee Medical Journal

pHisoDan*



New pHisoDan provides the exceptionally beneficial antibacterial and the powerfully detergent actions of pHisoHex (with hexachlorophene 3%) combined with the penetrating, keratolytic and fungicidal actions of a specially prepared dermatologic sulfur (5%) and sodium salicylate (0.5%). By a multiple therapeutic approach, pHisoDan quickly eliminates dandruff, seborrheic scales, excessive oiliness or dryness and itching of the scalp. Because pHisoDan contains pHisoHex, it cleans hair thoroughly and keeps the scalp freer of bacteria. It is also valuable in folliculitis, pyodermas and pustular eruptions of the scalp. In 1062 patients with seborrhea of the scalp (both sicca and oleosa), treated by 86 dermatologists, excellent or good results were obtained with pHisoDan in more than 90%.† Mild, gentle and with a pH adjusted to that of the skin, pHisoDan is nontoxic and nonirritating when used as directed. It does not stain or sting. pHisoDan should be used two or three times weekly until improvement is noted, thereafter once a week or as needed.

Available in 4¾ oz. squeeze bottles. Consult Winthrop literature for additional information.

*Trademark †Data in the files of Research Department, Sterling Winthrop Institute

pHisoHex, trademark reg. U.S. Pat. Off.

WINTHROP LABORATORIES, NEW YORK 18, N. Y.

Winthrop



Get your low-back patient back to work in days instead of weeks

You can expect rapid results from 'Soma' (carisoprodol)—because this unique drug breaks up both the spasm and pain of low-back syndrome at the same time.

Your patients will usually begin to feel better within a few hours. And as Kestler demonstrated in a controlled study of 212 consecutive patients with low-back problems: the average time for full recovery was only 11.5 days with 'Soma' (carisoprodol), 41 days without it. (J.A.M.A., April, 1960.)

Carisoprodol seldom produces side effects. Occasional drowsiness may occur, usually at higher than recommended dosage. Individual reactions may occur rarely.

USUAL DOSAGE: ONE 350 MG. TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

Soma®
carisoprodol

Wallace Laboratories
Cranbury, New Jersey

MEAN INCREASE OF 80% IN CORONARY BLOOD FLOW*

For your angina patients continuous protection all day, all night

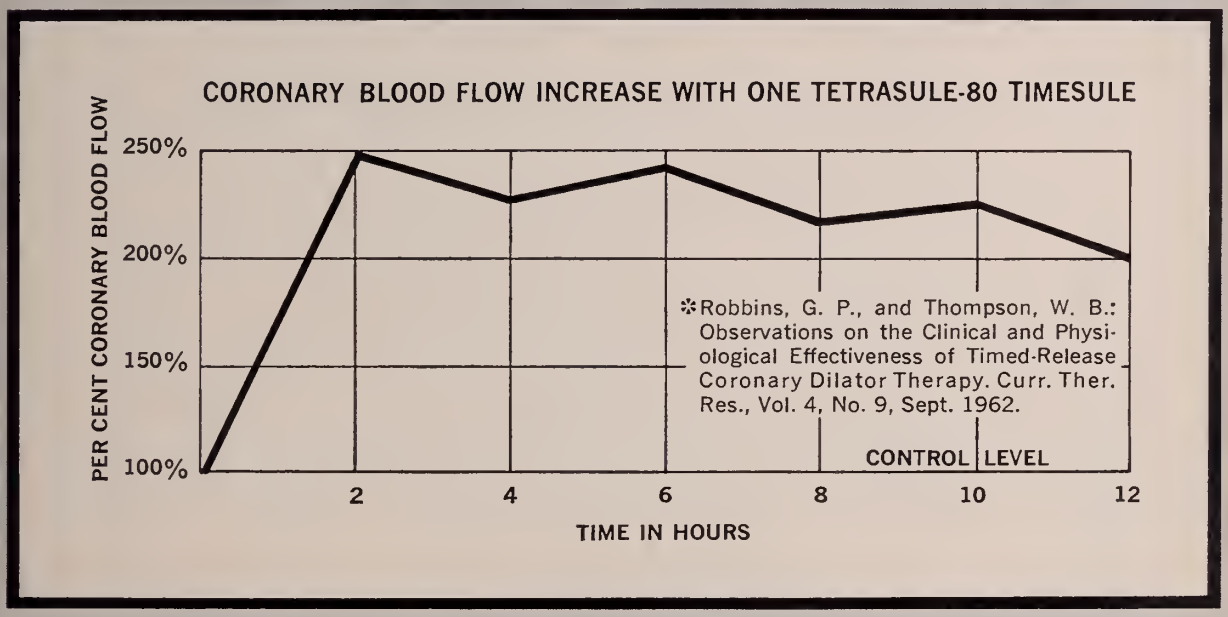


Tetrasule®

Pentaerythritol Tetranitrate, Arnar-Stone

Therapy with TETRASULE TIMESULES®, Timed-release capsules:

dilates coronary arteries → increases coronary blood flow → helps nourish oxygen-deficient myocardium → minimizes frequency of attacks and reduces their severity should they occur → reduces nitroglycerine requirements



With a Tetrasule Timesule, release of PETN is timed-phased over 12 hours and matches PETN need. The pellets are distributed throughout the G-I tract, and release is independent of enzymatic activity or motility. Thus, constant availability of PETN—no peaks or valleys—is assured.

B.i.d. dosage of Tetrasule Timesules provides continuous protection—all day, all night—including the critical early A.M. hours. This 12-hour protection was confirmed by a recent study of Robbins and Thompson , as demonstrated in the above chart.

SUPPLIED: Tetrasule, 30 mg. PETN; Tetrasule-S, 30 mg. PETN and 30 mg. Amobarbital (warning, may be habit-forming); Tetrasule-80, 80 mg. PETN.

CAUTION: Federal law prohibits dispensing without prescription. Use with caution in glaucoma and severe anemia.

For reprints of the above study or a clinical supply write to:

ARNAR-STONE Laboratories, Inc.
STORCK PHARMACEUTICALS DIVISION
Mount Prospect, Illinois

Trocinate®

Brand of Thiphenamil HCl.

FOR DIVERTICULITIS, MUCUS COLITIS,

IRRITATIVE DIARRHEA, IRRITATIVE URETERITIS,

BLADDER SPASM

*T*rocinate is a musculotropic antispasmodic with no appreciable anticholinergic action. It relieves spasms of the lower bowel and genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma. Each tablet contains 100 mgs. Trocinate HCl.

USUAL DOSAGE: 2 tablets, 4 times a day. Maintenance dosage is frequently lower.

Dispensed in bottles of 40 and 250 tablets.

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

throughout the wide middle range of pain — control with one analgesic PERCODAN® *tablets*

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC)

In a comprehensive range of indications marked by moderate to moderately severe pain, PERCODAN *assures speed, duration, and depth of analgesia by the oral route... acts within 5 to 15 minutes... usually provides uninterrupted relief for 6 hours or longer with just 1 tablet... rarely causes constipation.*



Formula — Each scored yellow PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl (Warning: May be habit-forming), 0.38 dihydrohydroxycodeinone terephthalate (Warning: May be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine. Also available: PERCODAN®-DEMI, containing the complete PERCODAN formula but with only half the amount of salts of dihydrohydroxycodeinone and homatropine. Both products are on oral Rx in all states where laws permit. **Average Adult Dose**—1 tablet every 6 hours. **Side Effects and Contraindications**—Although generally well tolerated, PERCODAN may cause nausea, emesis, or constipation in some patients. PERCODAN should be used with caution in patients with known idiosyncrasies to acetylsalicylic acid or acetophenetidin and in those with blood dyscrasias. *Literature on request.*

ENDO LABORATORIES Richmond Hill 18, New York

Endo®

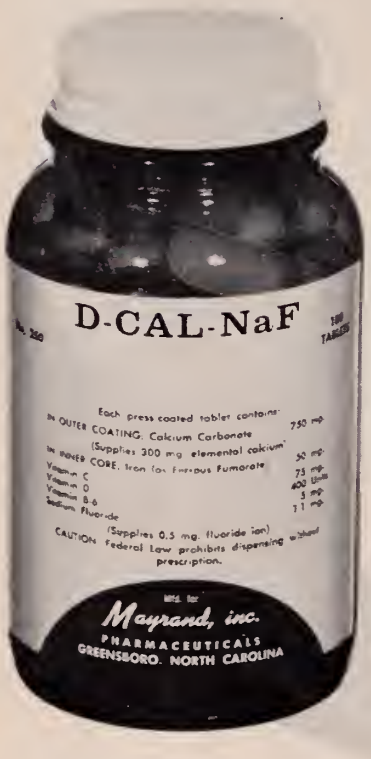
*U.S. Pats. 2,628,185 and 2,907,768

New--from Mayrand

D-CAL-NaF

BASIC SUPPLEMENT

plus FLUORIDE



Here is a phosphorus-free CALCIUM for immediate conversion and rapid assimilation; non-irritating, non-constipating IRON; and **only** those other nutrients needed to meet increased demands during pregnancy—Vitamins D, C and B-6.

Since tooth buds begin to form about the 6th week of pre-natal life, here is FLUORIDE for the future caries control of both mother and child.

Here is D-CAL-NaF — a sensible, moderate-cost formulation. ABOUT FOUR BOTTLES WILL PROTECT MOTHER AND FETUS DURING FULL TERM.

Each tablet Contains:

IN OUTER COATING:
Calcium Carbonate ..... 750 mg.
(Supplies 300 mg. of elemental Calcium)

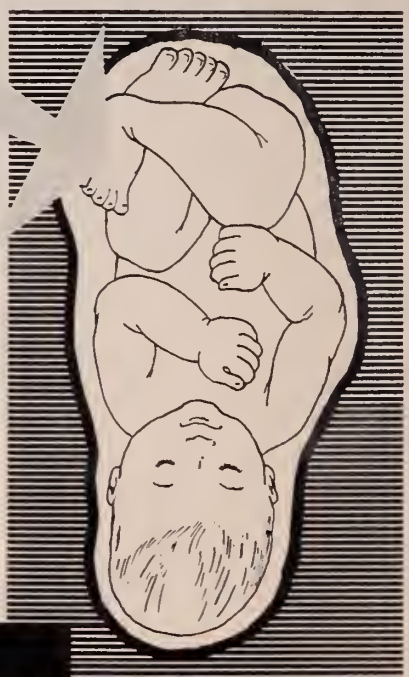
IN INNER CORE:
Iron (As Ferrous Fumarate) ..... 50 mg.
Vitamin D ..... 400 Units
Vitamin C ..... 75 mg.
Vitamin B-6 ..... 5 mg.
Sodium Fluoride ..... 1.1 mg.
(Supplies 0.5 mg. fluoride ion)

CONTRAINDICATED: Where natural or added fluoride in water exceeds 0.7 ppm. except on advice of physician.

SUPPLIED: BOTTLES OF 100 TABLETS —

References:

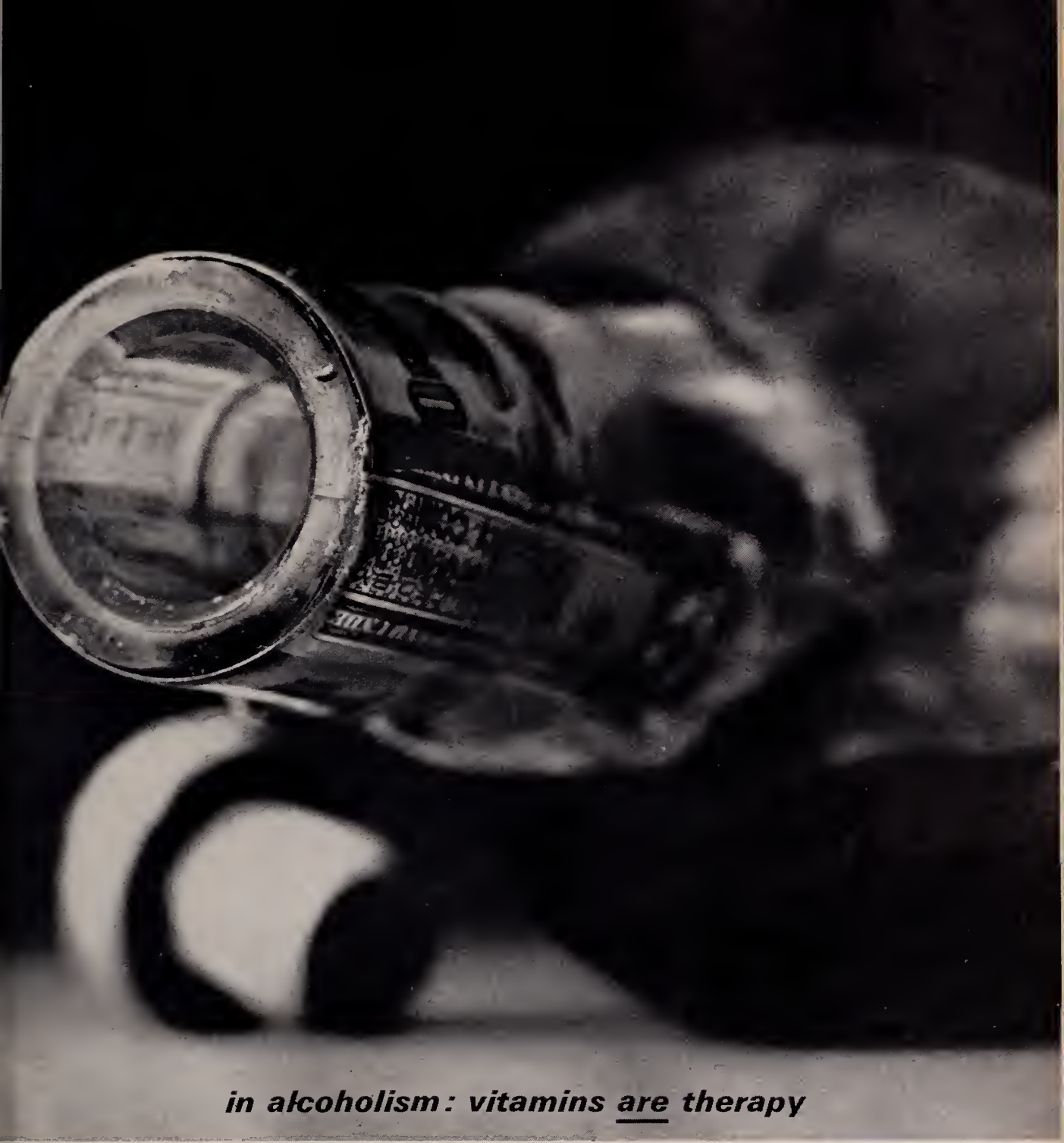
1. Feltman, R., and Kossel, G.: Prenatal Ingestion of Fluorides and their Transfer to the Fetus. Science 122:560-561 (Sept. 23) 1955.
2. Nutritional Reviews 17:267-268 (Sept.) 1959.
3. Council on Dental Therapeutics "Prescribing Supplements of Dietary Fluorides", J.A.D.A. 56:589-591, April 1958.
4. Hall, E. W., "The Family Doctor and Preventive Dentistry", G.P., XXII:6, December 1960. pp 109-111.



Mayrand, Inc. PHARMACEUTICALS

GREENSBORO, NORTH CAROLINA

SAMPLES AND COMPLETE DOSAGE INFORMATION ON REQUEST.



in alcoholism: vitamins are therapy

A full "comeback" for the alcoholic is partly dependent on nutritional balance... aided by therapeutic allowances of B and C vitamins. Typically, the alcoholic patient is seriously undernourished... from long-standing dietary inadequacy, from depletion of basic reserves of water-soluble vitamins.

FOR PROFESSIONAL RECOMMENDATION ONLY

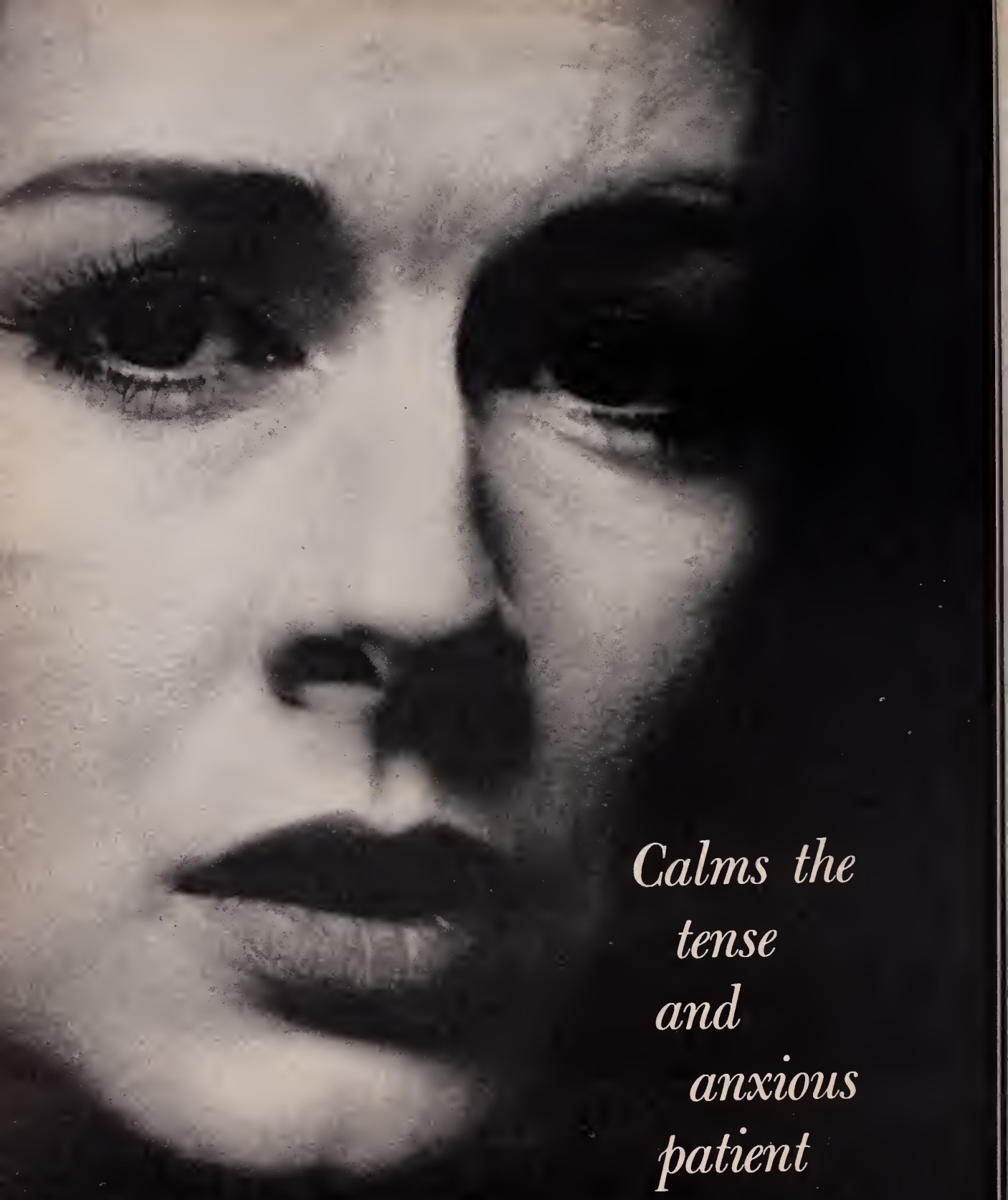
Each capsule contains: Vitamin B_1 (Thiamine Mononitrate)...10 mg. / Vitamin B_2 (Riboflavin)...10 mg. / Niacinamide...100 mg. / Vitamin C (Ascorbic Acid)...300 mg. / Vitamin B_6 (Pyridoxine HCl)...2 mg. / Vitamin B_{12} Crystalline...4 mcgm. / Calcium Pantothenate...20 mg. Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

6315-3

STRESSCAPS®

Stress Formula Vitamins Lederle



Calms the tense and anxious patient

'Miltown' (meprobamate) is a ***known*** and dependable drug. Its few side effects have been fully reported. ***There are no surprises in store for either the patient or the physician.*** This is why, despite the appearance of "new and different" tranquilizers, meprobamate is prescribed more than any other tranquilizer in the world.

Clinically Proven

in more than 750 published clinical studies and over eight years of clinical use

Outstanding Record of Effectiveness and Safety

1. Relieves anxiety and anxious depression in a broad spectrum of clinical conditions.
2. Doesn't leave patients "too groggy" to work or think or learn.
3. Relaxes both mind and skeletal muscle. Relieves physical tension as well as emotional stress.

Product Information: 'Miltown' (meprobamate) is indicated in anxiety and tension states, and all conditions in which anxiety and tension are symptoms; in muscle spasm or tension; and in petit mal.

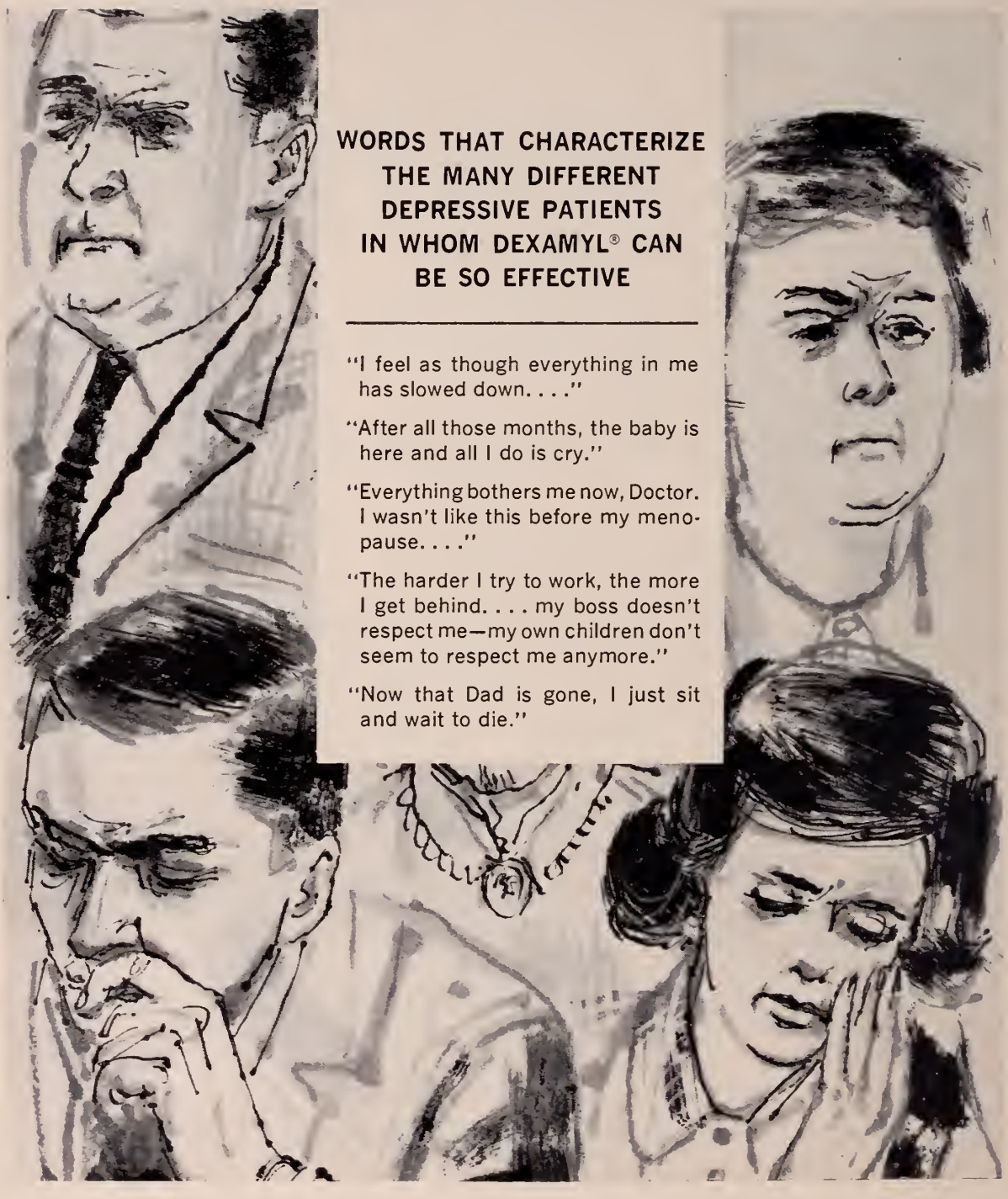
Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Massive overdosage may produce coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.

Usual dosage: 1 or 2 400 mg. tablets t.i.d. **Supplied:** 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50.

Miltown®
meprobamate

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-9209



WORDS THAT CHARACTERIZE THE MANY DIFFERENT DEPRESSIVE PATIENTS IN WHOM DEXAMYL® CAN BE SO EFFECTIVE

"I feel as though everything in me has slowed down. . . ."

"After all those months, the baby is here and all I do is cry."

"Everything bothers me now, Doctor. I wasn't like this before my menopause. . . ."

"The harder I try to work, the more I get behind. . . . my boss doesn't respect me—my own children don't seem to respect me anymore."

"Now that Dad is gone, I just sit and wait to die."

DEXAMYL® SPANSULE® brand of sustained release capsules

FORMULA: Each 'Spansule' capsule No. 1 contains 10 mg. of Dexedrine® (brand of dextro amphetamine sulfate), and 1 gr. of amobarbital, derivative of barbituric acid [Warning, may be habit forming]. Each 'Spansule' capsule No. 2 contains 15 mg. of 'Dexedrine' (brand of dextro amphetamine sulfate) and 1½ gr. of amobarbital [Warning, may be habit forming]. The active ingredients of the 'Spansule' capsule are so prepared that a therapeutic dose is released promptly and the remaining medication, released gradually and without interruption, sustains the effect for 10 to 12 hours.

INDICATIONS: (1) For mood elevation in depressive states; (2) for control of appetite in overweight.

USUAL DOSAGE: One 'Dexamyl' *Spansule* capsule taken in the morning for 10- to 12-hour effect.

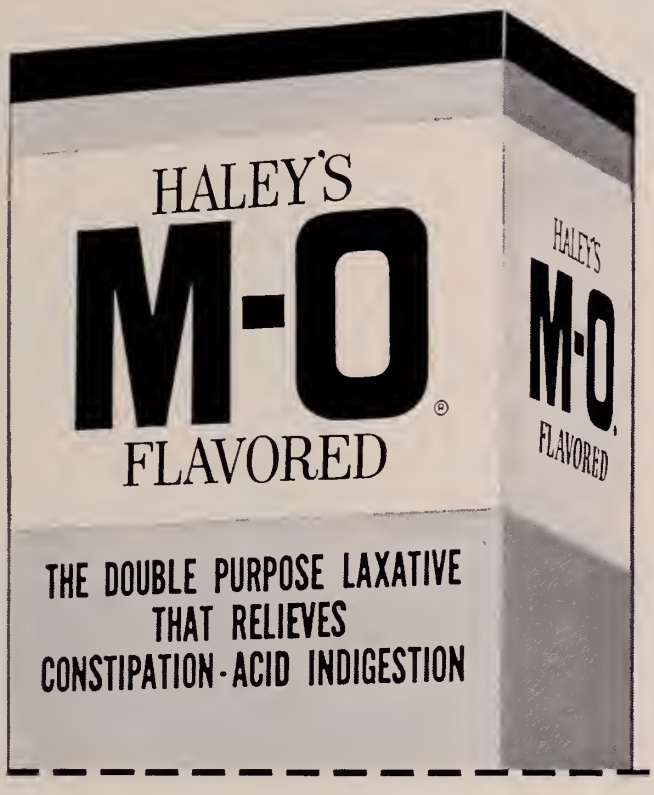
SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Use with caution in patients hypersensitive to sympathomimetics or barbiturates and in coronary or cardiovascular disease or severe hypertension. Excessive use of the amphetamines by unstable individuals may result in a psychological dependence; in these rare instances withdrawal of medication is recommended. It is generally recognized that in pregnant patients all medications should be used cautiously, especially in the first trimester.

SUPPLIED: 'Spansule' capsules No. 1 (1 dot on capsule) and No. 2 (2 dots on capsule), in bottles of 50.
Prescribing information Jan. 1963.

Smith Kline & French Laboratories

NOW ALSO IN FLAVORED FORM!



BOTTLES OF
4 OZ., 8 OZ.,
1 PT., 1 QT.

Antacid–Laxative–Lubricant to help correct constipation

Magnesium Hydroxide plus pure mineral oil make *Haley's M-O* a smooth working antacid-laxative-lubricant that efficaciously relieves constipation and attendant gastric hyperacidity.

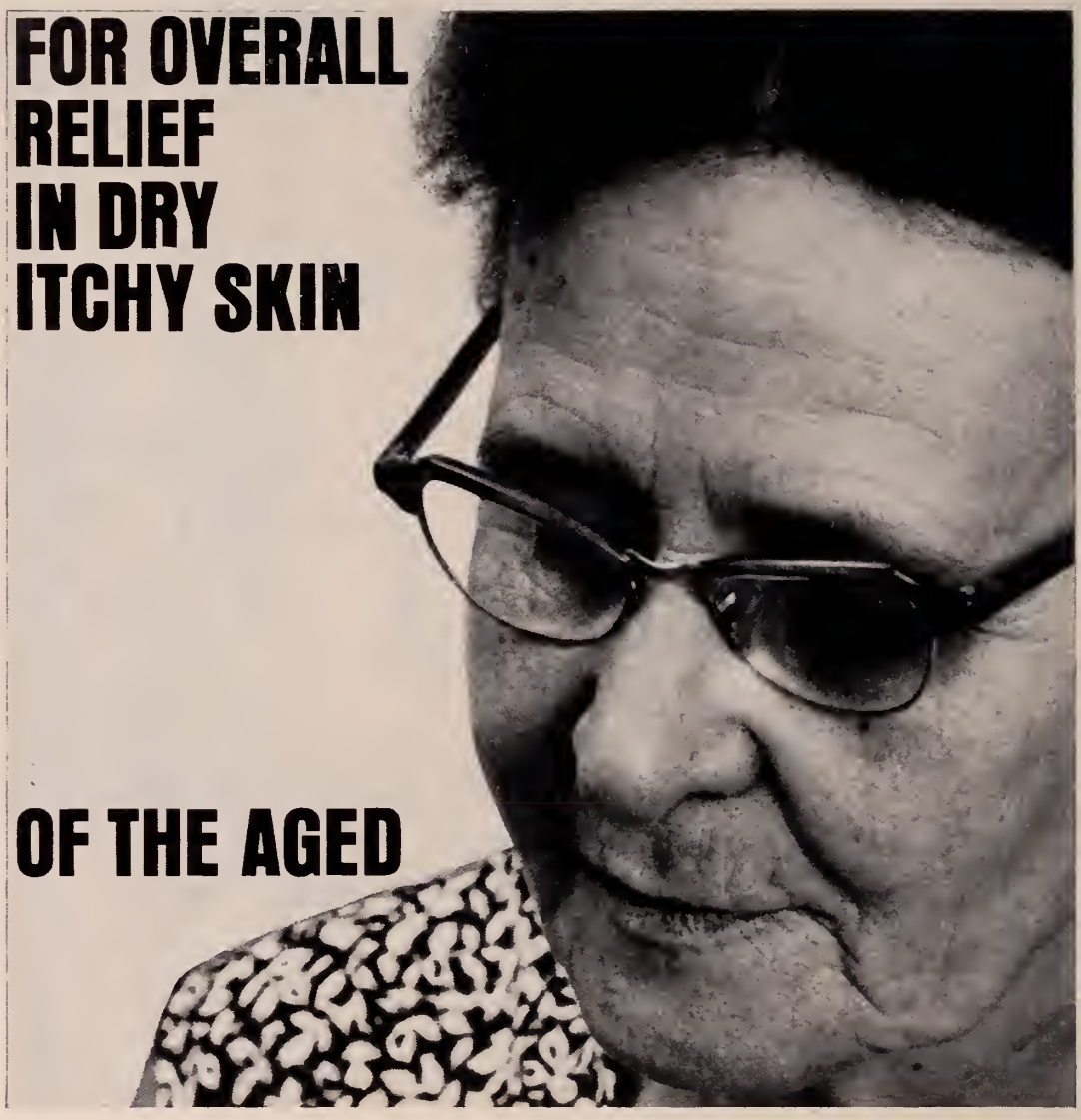
The oil globules in *Haley's M-O* are minutely subdivided to assure uniform distribution and thorough mixture with intestinal contents. Oil leakage is thus avoided and a comfortable evacuation is effected through the stimulation of normal intestinal rhythm and blunted defecation reflex.

May we send samples for your evaluation? Just write:

THE CHAS. H. PHILLIPS CO.

Division of Sterling Drug Inc., 1450 Broadway, New York 18, N. Y.

FOR OVERALL RELIEF IN DRY ITCHY SKIN OF THE AGED



SARDO® IN THE BATH

Borota and Grinell[1] found that SARDO baths rehydrate, relieve dryness, and promptly allay itching over the entire skin in elderly patients. A very fine lubricating film prevents undue evaporation of moisture—to help restore the normal lipid/aqueous balance of the skin, and keep it softer, smoother, more comfortable.

SARDO is the original high quality, superbly dispersible* bath oil—clinically proven[1-6] to allay xerosis and pruritus in atopic dermatitis, diabetic dry skin, eczematoid dermatitis, soap dermatitis, neurodermatitis, etc. Non-sensitizing, pleasant, non-sticky, economical.



Bottles of 4, 8 and 16 oz.

SAMPLES and literature
available from... SARDEAU, INC. 75 East 55th St., New York 22, N. Y.

1. Borota, A., and Grinell, R. N.: J. Amer. Geriatrics Soc., 10:413, 1962. 2. Spoor, H. J.: N. Y. State J. M., 58: 3292, 1958. 3. Lubowe, I. I.: Western Med., 1:45, 1960. 4. Weissberg, G.: Clin. Med., 7:1161, 1960. 5. Lieberman, W.: Amer. J. Proctology, 12:374, 1961. 6. Dick, L. A.: Skin, 1:341, 1962.

*Pat. Pend. T.M. © 1963 by Sardeau, Inc.

Question:

"What is a tranquilaxant?"

Answer:

"A drug that is both a tranquilizer and a muscle relaxant."

TRANCOPAL®
brand of
chlormezanone
is a tranquilaxant

As a tranquilizer, TRANCOPAL (chlormezanone/Winthrop) "is effective in the symptomatic treatment of anxiety."[1] Its tranquilizing properties are similar to those of other mild tranquilizers.[1] Furthermore, it relieves tension of both mind and muscle without interfering with normal activity or alertness.

The muscle relaxant properties[2] of this drug provide an extra dimension of effectiveness...relaxing the spasm which so frequently accompanies psychogenic disorders. Hence, the total therapeutic effect of TRANCOPAL (chlormezanone/Winthrop)—a true "tranquilaxant"—is to produce a relaxed mind in a relaxed body.

Unsurpassed Tolerance: Less than 3 per cent of patients develop side effects with TRANCOPAL (chlormezanone/Winthrop), such as occasional drowsiness, dizziness, flushing, nausea, depression, weakness and drug rash. If severe, medication should be discontinued. In most patients, however, side effects are minor and do not necessitate interruption of treatment. There are no known contraindications.

Available: 200 mg. Caplets® (green colored, scored), 100 mg. Caplets (peach colored, scored), each in bottles of 100.

Dosage: Adults, 1 Caplet (200 mg.) three or four times daily; in some patients 100 mg. three or four times daily suffices. Children (5 to 12 years), from 50 to 100 mg. three or four times daily.

Winthrop
WINTHROP LABORATORIES
New York 18, N.Y.

References: 1. A.M.A. Council on Drugs: J.A.M.A. 183:469 (Feb. 9) 1963. 2. Gruenberg, F.: Curr. Ther. Res. 2:1 (Jan.) 1960.

1785M

Is there a need for a purely bacteriostatic enteric compound?

— that would go straight to the basis of most intestinal infections.

— that could be employed in the treatment of non-specific ulcerative colitis.

— that would prepare the intestine for operation.

— that would reduce the number of E. Coli and Clostridia in the intestine.

If you agree that there is just such a need, then you'll appreciate the capabilities of:

INTESTOL

TABLETS & SUSPENSION FOR INFANTS, CHILDREN, AND ADULTS

CAUTIONS AND SIDE EFFECTS:

Succinylsulfathiazole and phthalylsulfathiazole are absorbed only to a slight extent from the intestine. As a consequence many of the cautions and side effects of the systemic use of sulfonamides do not apply to the same extent. Renal complications are very unlikely and other toxic and allergic side effects of sulfa therapy are quite rare. Nevertheless, the preparation should be used with caution in patients exquisitely sensitive to the sulfa drugs.

COMPOSITION:

Each tablet and each 5cc (Average teaspoonful) contains —

SUCCINYL-SULFATHIAZOLE	0.25 Gms.
PHTHALYL-SULFATHIAZOLE	0.25 Gms.

SUPPLIED:

INTESTOL tablets in bottles of 100 and 1,000
INTESTOL Suspension in pints only.

Another established need product

FTP **First Texas Pharmaceuticals, Inc.**

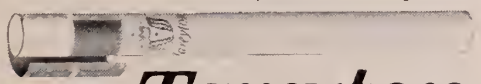
DALLAS • ATLANTA • SINCE 1901

Hungry for flavor? Tareyton's got it!



Flavor you never thought you'd get from any filter cigarette!

You'll never know how satisfying filter smoking can be until you try Tareytons. Fine, flavor-rich tobaccos go into each Tareyton. Then the famous Dual Filter brings out the best taste of these choice tobaccos. Sound too good to be true? Pick up a pack of Tareytons today and see for yourself.



DUAL FILTER Tareyton

Product of The American Tobacco Company — "Tobacco is our middle name"

Lifts depression..



"I feel like my old self again!" Thanks to your balanced therapy with 'Deprol', her depression has lifted and her mood has brightened – while her anxiety and tension have been calmed. She sleeps better, eats better, and normal drive and interest have replaced her emotional fatigue.

as it calms anxiety

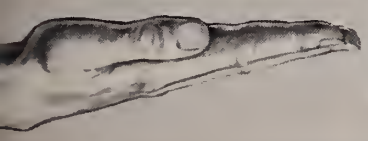
Brightens mood...relaxes tension

Energizers may stimulate the depressed patient, but they often aggravate anxiety and insomnia. Tranquilizers may help the anxious patient, but they often deepen depression and emotional fatigue.

'Deprol' avoids these "seesaw" effects; it relieves both depression and anxiety. Moreover, it does not cause liver damage, psychotic reactions or changes in sexual function.

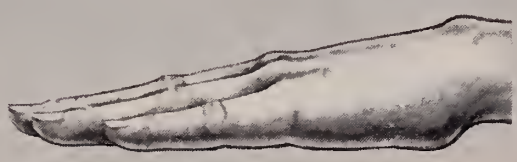
Product Information: 'Deprol' is indicated for depression, especially when accompanied by anxiety, tension, agitation, rumination or insomnia. Slight drowsiness and, rarely, allergic reactions, due to meprobamate; and occasional dizziness or feeling of depersonalization in higher dosage, due to benactyzine, may occur. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.

Energizers relieve depression

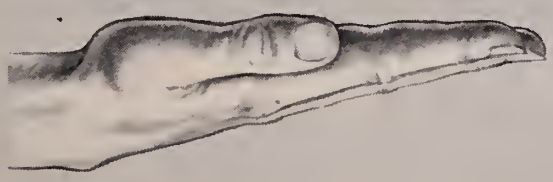




Tranquilizers reduce anxiety



'Deprol' both lifts depression and calms anxiety



Usual Dosage: 1 tablet q.i.d. May be increased gradually, as needed, to 3 tablets q.i.d.; with establishment of relief, may be reduced gradually to maintenance levels.

▲Deprol▲®

meprobamate 400 mg.
+ benactyzine 1 mg.

WALLACE LABORATORIES / *Cranbury, N.J.*



If you don't have fluoride in your water...



...you should know about new Vi-Daylin® w/Fluoride with entrapped flavor

The evidence is in. More than 8,000 published reports verify the effectiveness and safety of fluoride as prophylaxis against dental caries. Yet most communities today are still without water fluoridation.

If you are in such an area, new Vi-Daylin w/Fluoride is an almost ideal means of supplementation for children. For three reasons:

1. Each tablet contains the equivalent of 1 mg. fluoride. This is the amount suggested for children three and over by the American Dental Association.*[1,2]

2. As in regular Vi-Daylin Chewable, your patient gets the benefit of *entrapped flavor*. This ingenious, double-coating process permits complete entrapment of raw vitamin tastes and odors—and keeps delicate flavoring oils fresh until the moment of use. Result: A tablet that tastes like citrus candy.

3. Sweetened with sugar-free Sucaryl®. Because Sucaryl is non-nutritive, it will not react with bacteria to form acids in the mouth.

Cost? No more than regular Vi-Daylin Chewable in economical bottles of 100.

75TH ANNIVERSARY ABBOTT

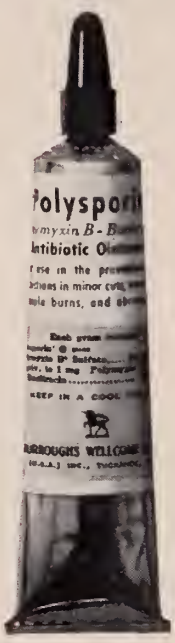
1. Prescribing Supplements of Dietary Fluorides, Council of Dental Therapeutics, J.A.D.A., 56:591, April, 1958.
2. Fluoride Compounds, Accepted Dental Remedies, 27th Ed.:139, 1962.

VI-DAYLIN w/FLUORIDE—Multivitamins with Fluoride. SUCARYL—Abbott's Non-Caloric Sweetener.

*In areas where drinking water is substantially devoid of fluoride.

304213

in treating topical infections, no need to sensitize the patient



USE 'POLYSPORIN'® brand POLYMYXIN B-BACITRACIN ANTIBIOTIC OINTMENT

broad-spectrum antibiotic therapy with minimum risk of sensitization

Caution: As with other antibiotic products, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **Supplied:** in ½ oz. and 1 oz. tubes.

Complete literature available on request from Professional Services Dept. PML.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

Today's Health

A GOOD BUY IN PUBLIC RELATIONS

Place it in your reception room

Today's Health is published for the American Family by the American Medical Association, 535 N Dearborn St.—Chicago 10, Illinois

Give your subscription order to a member of your local Medical Society Woman's Auxiliary, who can give you Special Reduced Rates.

BRAWNER HOSPITAL, INC.

(Established 1910)

2932 South Atlanta Road, Smyrna, Georgia

FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION

MODERN FACILITIES

Jas. N. Brawner, Jr., M.D.
Medical Director

Aloysius I. Miller, M.D.
Mark A. Gould, M.D.

Phone HEmlock 5-4486



Protect the kidneys and other threatened organs with

Rautrax-N

SQUIBB STANDARDIZED RAUWOLFIA SERPENTINA WHOLE ROOT AND BENDROFLUMETHIAZIDE WITH POTASSIUM CHLORIDE

When treatment of hypertension is effective, the danger of damage to the renal system is reduced.[1,2] "Hypertensive patients suffer from vascular deterioration roughly proportional to the severity of the hypertension. ...Reduction of blood pressure to normotensive levels reduces or arrests the progress of vascular damage with a resultant decrease in morbidity and mortality. Among two comparable groups of patients with [nonmalignant] hypertension of equal severity, 72 per cent of those treated were still living after five years or more, while only 24 per cent of those not treated were alive at the end of this period."[1] *Because Rautrax-N lowers blood pressure so effectively, it will provide this important protection for your hypertensive patients.*

Rautrax-N—a combination of Raudixin, Squibb Standardized Rauwolfia Serpentina Whole Root, and the diuretic, Naturetin, Squibb Bendroflumethiazide—is effective in mild,[4] moderate[3,4] or severe hypertension.[3,5] It lowers blood pressure gently and gradually. And control of hypertension helps protect not only the kidneys but also the heart and brain from vascular damage.[2] For full information, see your Squibb Product Reference or Product Brief.

Supply: Rautrax-N—capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin, and 400 mg. potassium chloride. *Rautrax-N Modified*—capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin, and 400 mg. potassium chloride.

References: (1) Moyer, J. H., and Heider, C.: Am. J. Cardiol. *9*:920 (June) 1962. (2) Brest, A. N., and Moyer, J. H.: Pennsylvania M. J. *63*:545 (Apr.) 1960. (3) Hutchison, J. C.: Current Therap. Res. *4*:610 (Dec.) 1962. (4) Berry, R. L., and Bray, H. P.: J. Am. Geriatrics Soc. *10*:516 (June) 1962. (5) Feldman, L. H.: North Carolina M. J. *23*:248 (June) 1962.

'RAUTRAX'®, 'RAUDIXIN'® AND 'NATURETIN'® ARE SQUIBB TRADEMARKS.

SQUIBB

Squibb Quality—the Priceless Ingredient

SQUIBB DIVISION Olin

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Available to Members Who Qualify

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY

Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
25/75	76.61	183.31
50/150	84.67	202.61
75/225	89.60	214.40
100/300	92.29	220.83

X-RAY—RADIUM OR SHOCK THERAPY

5/15	89.60	152.00
25/75	153.22	259.92
50/150	169.34	287.28
75/225	179.20	304.00
100/300	184.58	313.12

1. Partnership liability, increase premium for each partner by 20%
2. Obstetricians and Gynecologists take Surgeons rates
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Higher limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability
*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.



FLEXIBLE

for the patient who must follow an intensive and prolonged antacid regimen as in the treatment of *peptic ulcer*

as reactive in tablet form . . .

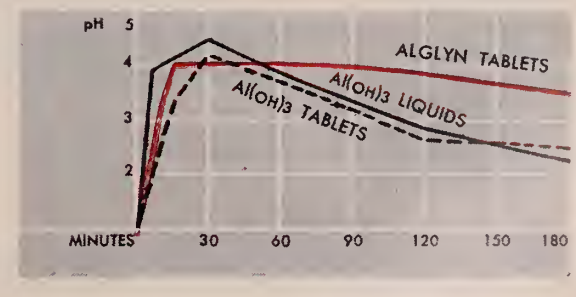
ALGLYN®

Dihydroxy aluminum aminoacetate

The superiority of Alglyn (dihydroxy aluminum aminoacetate) as an antacid over ordinary aluminum preparations is quite pronounced. Not only do Alglyn Tablets act as rapidly as aluminum hydroxide gels and magmas, but they maintain a much more effective pH for a longer time (see chart).

Furthermore, Alglyn Tablets are decidedly superior when antacid-belladonna therapy is indicated. Ordinary aluminum preparations may actually *ad*sorb as much as 80% of the spasmolytic drug, as compared to only 7% for Alglyn Tablets. In addition, Alglyn contains no sodium and less aluminum.

Supplied in bottles of 100 0.5 Gm. tablets. Also as Belglyn® (with belladonna), and as Malglyn® (with belladonna and phenobarbital). Literature available upon request. *(See pg. 549 PDR for complete product information.)*



BRAYTEN

BRAYTEN PHARMACEUTICAL COMPANY *Chattanooga 9, Tennessee*



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James K. Ward, M.D.
Phones WOrth 1-1151

ß

BIRTCHER MEDICAL ELECTRONICS

CARDIOLOGY / Electrocardiograph · Cardioscope · Heartpacer® · Defibrillator · Mobile Cardiac Monitoring & Resuscitation Center

ELECTROSURGERY / The Blendtome · Hyfrecator® · Electrosectilis®

PHYSICAL THERAPY / Ultrasonics · Shortwave Diathermy · Ultraviolet · Infrared · Muscle Stimulators · Hydrotherapy



FREE 96-PAGE BOOK — JUST PUBLISHED
THE LATEST ON CLINICAL ULTRASONICS

I have a supply of the just-published "Proceedings" of the last meeting of the American Institute of Ultrasonics in Medicine. I will be happy to send you a copy...no obligation, of course. Write or call me.

HOWARD JENNINGS
P.O. Box 9039, Knoxville, Tennessee, 577-4793

from the feet up—clears ringworm economically with half the dosage

Schering

fulvicin-u/f®

griseofulvin, ultra/fine, Schering

"Culture negative" after four weeks in this case of plantar tinea pedis

R. B., a 36-year-old writer, was first seen on November 5, 1962, with severe inflammatory tinea pedis involving the sole of the right foot. There was an 8-centimeter area of erythema, with vesicles, bullae and scales on the plantar surface of the foot. The lesion had been present for two weeks. Microscopic examination of scrapings showed hyphae, and cultures grew out *T. mentagrophytes.*

The patient was started on 0.5 gm. FULVICIN-U/F (griseofulvin, *ultra-fine*) daily. Three weeks later there was distinct improvement with only mild erythema and scaling present. After one additional week, therapy was discontinued and a second culture was negative. The patient was last seen on December 24, approximately three weeks after termination of therapy. At this time the skin was entirely normal in appearance.







1 Plantar tinea pedis before therapy.

2 After two weeks of therapy.

3 Six weeks later, skin essentially normal (two weeks after termination of therapy).

Clinical considerations: Although clinical studies with griseofulvin have not revealed evidence of serious toxicity, ***side effects***—as with any potent drug or antibiotic—may occur in some patients. An occasional minor decrease in leukocyte count has been observed, which was reversible when medication was discontinued. Occasionally, there may be heartburn, nausea, epigastric discomfort, diarrhea, lethargy, fatigue, psychomotor incoordination and, during the first week of therapy, headache. Studies are in progress to determine the safety of this drug during pregnancy; until the results of these studies are available, griseofulvin is contraindicated during pregnancy. ***Caution*** should be observed in patients with known penicillin-sensitivity. Should urticaria or drug rash develop, the drug should be withdrawn. ***Available*** in 125 mg., 250 mg. and 500 mg. scored tablets, bottles of 60 and 250.

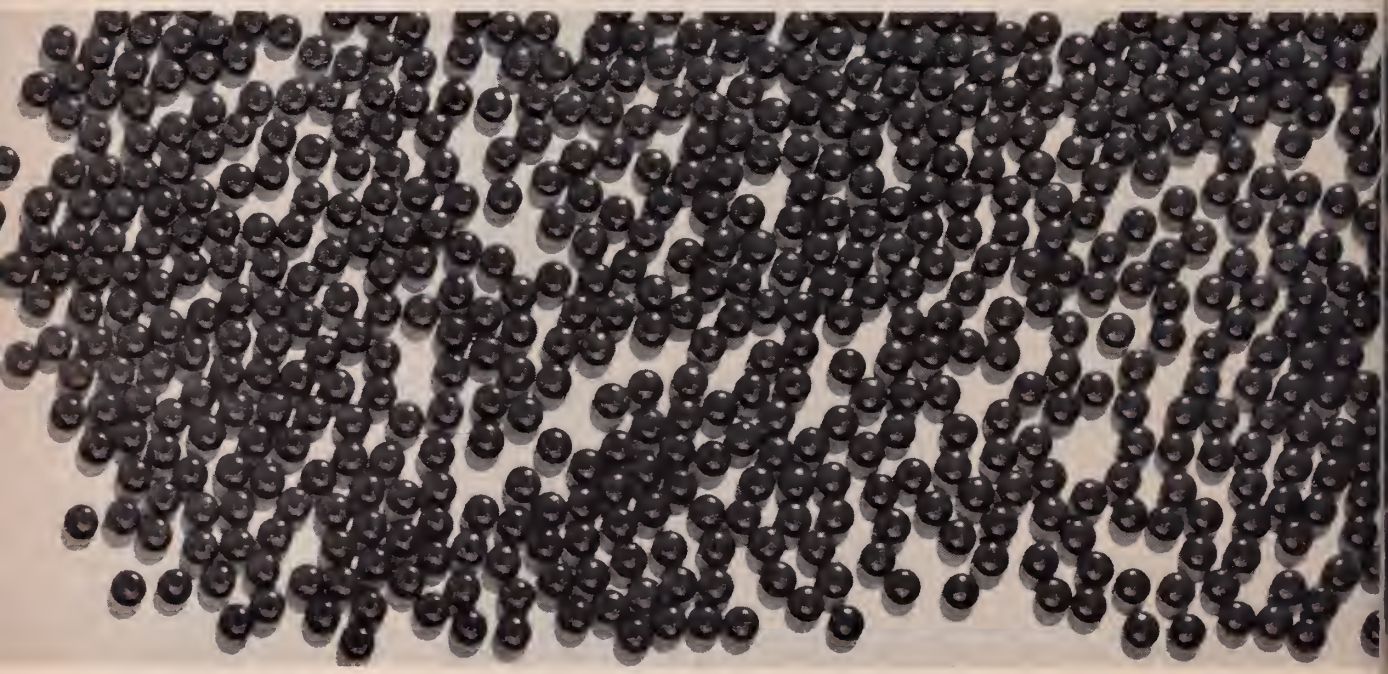
For complete details, consult Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Union, New Jersey.

CASE HISTORY AND PHOTOGRAPHS COURTESY OF LEO R. LESE, M.D., NEW YORK, N. Y.

This is half an inspection



. . . this is the other half



Inspecting a coated tablet poses a two-sided problem: How do you make certain that both top and bottom are flawless without picking up each tablet and turning it? ▪ We have a machine especially designed to do the job. The tablets pass along a belt under the watchful eye of an inspector. Any tablet that has the slightest irregularity in shape or coating is rejected. Then a second belt overrides the first and, holding the tablets tightly in place, turns them over and delivers them to another belt for inspection of the other side. ▪ It is another in a long series of control measures designed to deliver quality pharmaceuticals every time.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

3300 79

Journal of the Tennessee Medical Association
OWNED AND PUBLISHED BY THE ASSOCIATION
Volume 56 MAY, 1963 No. 5

The Treatment of Achalasia*

RICHARD O. BICKS, M.D., Memphis, Tenn., and
ROBERT E. TAYLOR, M.D., Ogden, Utah

The authors compare the results of surgical treatment with forcible dilatation of the cardia in this condition.

Introduction

New technics to study the physiology of swallowing in health and disease, the pharmacodynamic, and epidemiologic relationship to Chagas disease,[1-3] have all contributed to our knowledge of achalasia since World War II. Many problems appear unsettled[4] except that textbooks of Surgery and recent reports make it appear that surgical intervention (Heller operation) is the only effective therapy.[4-6] Apparently this is considered so universally that often no mention is made of medical treatment.

This paper reports a total of 21 patients with achalasia treated conservatively, by forceful dilatation, and by surgery, in the same institution over a 10-year period. The results of treatment are compared in terms of relief of symptoms, mortality, morbidity and length of hospitalization. Significant differences were found indicating that forceful dilatation is the initial treatment of choice in all cases.

Material

The City of Memphis Hospital records from January 1, 1952, through December 31, 1961, were reviewed. The John Gaston Hospital is the main teaching unit of the University of Tennessee College of Medicine. The patient population is low income and two-thirds negro.

*From the City of Memphis Hospitals and Department of Medicine, University of Tennessee College of Medicine, Memphis, Tenn.

All patients had characteristic symptoms of dysphagia, chest pain, vomiting and weight loss. Roentgenographic diagnosis (Fig. 1) was confirmed by esophagoscopy



FIG. 1. Untreated achalasia-esophageal x-ray (Patient 8).

and/or esophageal cytology in nearly all patients. Patients with peptic esophagitis, strictures following ingestion of lye, scleroderma, and acute inflammatory esophagitis were excluded.

Follow-up was obtained from hospital charts, mailed questionnaires and personal interviews. Relief of symptoms and weight gain were chosen as criteria of successful treatment and the mortality, morbidity as well as length of hospitalization were noted. Recurrence rates were not studied

Table 1
THE TREATMENT OF ACHALASIA
CONSERVATIVE MEDICAL THERAPY

Number	Sex Age	Chief Complaint	Duration	Treatment	Comments	Result
1	M 73	Dysphagia	4 wks.	Diet Sedation	Active cavitary pulmonary tuberculosis	Poor
2	F 72	Vomiting	1 mo.	Diet	Bilateral pneumonia	Death
3	F 50	Dysphagia	4 yrs.	Passive Bouginage	Psychotic	Poor

specifically because of the short duration of this study.

Results

Three patients were treated conservatively with soft diet, sedatives, and passive bouginage. One of these was transferred to another hospital with active cavitary pulmonary tuberculosis. The second died with bilateral pneumonia while in the hospital. (Table 1.) The last refused all treatment and was transferred to a mental hospital because of psychotic behavior. None had significant relief of symptoms.

Seven patients were treated by forceful dilatation (4 pneumatic, 3 hydrostatic). There was neither mortality or morbidity and the length of hospitalization ranged from 3 to 34 days with an average of 16 days. There was one failure of pneumatic dilatation. A corkscrew esophagus prevented proper positioning of the instrument. This patient later underwent an unsuccessful Heller procedure. (Table 2.)

Thirteen patients had cardiac myotomy. Results were satisfactory in 7. Six had no relief of symptoms in the postoperative period. There were no operative deaths; 5 patients had major postoperative complications. These included major stitch abscess, intercostal neuritis, thrombophlebitis, serum hepatitis, hydropneumothorax, peptic esophagitis, and incisional hernia for which surgical repair has been advised. The hospital stay ranged from 12 to 46 days with an average of 28 days (Table 3).

Patients E.D. and D.C. were treated with both pneumatic dilation and cardiac myotomy.

Discussion

The treatment of achalasia can be broadly divided into surgical and medical. Satisfactory relief of symptoms is rarely obtained by reassurance, mild sedation, dietary regulation and passive bouginage. This type of therapy is only useful when all other procedures are contraindicated.

Definitive medical treatment entails mechanical dilatation of the narrowed portion of the esophagus. Actual rupture of the circular muscle fibers should be obtained. This can be achieved with a variety of instruments such as mechanical, pneumatic, and

Table 2
THE TREATMENT OF ACHALASIA
PATIENTS TREATED WITH FORCIBLE DILATION

Number	Sex Age	Complaint	Duration	Treatment	Results	Complications	Length of Hospital Stay (Days)
4	M 19	Dysphagia	3 mos.	Hydrostatic	Excellent	None	19
5	M 29	Dysphagia	8 yrs.	Hydrostatic	Excellent	None	16
6	M 29	Dysphagia	3 yrs.	Hydrostatic	Excellent	None	16
7	M 20	Vomiting	8 mos.	Pneumatic	Excellent	None	7
8	F 69	Vomiting	14 yrs.	Pneumatic	Excellent	None	34
9	M 41	Vomiting	1 mo.	Pneumatic	Nil*	None	28
10	M 27	Dysphagia	15 yrs.	Pneumatic	Excellent**	None	3

*Unable to position bag because of corkscrew esophagus
**Heller operation 3 years previously with no relief of symptoms

Table 3

The Treatment of Achalasia
Results of Heller Operation

No.	Age Sex	Chief Complaint	Duration	Relief of Symptoms	Complications	Length Hospital Stay	Comments
9	41 M	Vomiting	1 mo.	Nil	Incisional hernia; peptic esophagitis	27 days	See Table 2. Previous failure-pneumatic dilatation
10	24 M	Dysphagia	12 yrs.	Nil	None	21 days	Successful pneumatic dilatation later. See Table 2.
11	80 M	Dysphagia	1 yr.	Excellent	Stitch abscess	20 days	No attempt at forcible dilatation
12	22 F	Dysphagia	3 yrs.	Excellent	None	20 days	No attempt at forcible dilatation
13	52 F	Vomiting	4 wks.	Excellent	None	27 days	No attempt at forcible dilatation
14	20 M	Chest pain	5 yrs.	Excellent	None	46 days	No attempt at forcible dilatation
15	29 M	Dysphagia Vomiting	2 yrs.	Excellent	None	16 days	No attempt at forcible dilatation
16	43 F	Dysphagia	2 yrs.	Excellent	None	23 days	No attempt at forcible dilatation
17	62 F	Dysphagia	16 yrs.	Excellent	Intercostal neuralia; thrombophlebitis	31 days	No attempt at forcible dilatation—still has chest pain
18	59 M	Chest pain Vomiting	5 yrs.	Nil	None	41 days	No attempt at dilatation prior to surgery
19	65 M	Dysphagia	8 yrs.	Nil	Hydropneumothorax	34 days	No attempt at dilatation prior to surgery
20	37 M	Dysphagia	7 mos.	Nil	Incisional hernia; serum hepatitis	36 days	No attempt at dilatation hernia requires surgical repair
21	61 M	Dysphagia	1 yr.	Nil	None	45 days	No attempt at dilatation

hydrostatic dilators.[7] A good result is accompanied by mild bleeding into the lumen of the esophagus and severe pain at the time of dilatation. Approximately 80% of all cases are relieved of symptoms by one or more dilatations.[8] The majority of patients with achalasia can be adequately treated by such a series of three consecutive dilatations. If these are not successful, further attempts should not be made.[9] Dilatation of the esophagus is not a totally benign procedure. One large series reports a 0.36% mortality and a 3% incidence of complications such as mediastinitis, hemorrhage and rupture of the esophageal wall.[10]

Forceful dilatation of the esophagus is not a new treatment for achalasia. Russel described the first pneumatic dilator in 1898, and Plummer's hydrostatic dilator was a simpler modification of this instrument.[8] Several other instruments have been developed over the years utilizing the same principles. There has been a problem in the past in the production and availability of dilators. At present there is a commercially available pneumatic dilator* which is inexpensive and simple to use. Careful technic is essential to success.

We have found four-pound nylon fishing testline and a ⅛ ounce sinker to be an excellent weight and guide line. Passage of the collapsed pneumatic bag into the stomach beyond the affected cardio-esophageal junction is done under fluoroscopic control. Final positioning of the bag is done by withdrawing it proximally until the bag's narrowest portion is at the level of the diaphragm. (Fig. 2.) The bag must be strongly held in place during the three-minute period of dilatation. Three hundred millimeters of mercury pressure and fluoroscopic positioning are checked every 20 seconds. Anxiety is controlled by intramuscular barbiturates prior to the procedure. In some patients the guide line and sinker was not used because of the controlled passage due to flexible wire in the lumen of the pneumatic dilator. In the 24 hours following this procedure patients remained in bed, on clear fluid diet, with hourly rectal temperatures, and white blood cell count done every six hours. (Fig. 3.)

In our material the popularity of the Heller operation is well-demonstrated. Thir-

*The Cardia-Dilator, Eder Instrument Company, Chicago, Illinois



FIG. 2. Pneumatic dilator in place and fully expanded (Patient 8).



FIG. 3. Esophageal x-ray one week after series of pneumatic dilatations. Barium falls freely into stomach by gravity and symptoms are completely relieved (Patient 8).

teen patients were treated surgically and 12 of these did not even have a trial of forceful dilatation. Two patients had passive dilatation which is a method discarded years ago as definitive treatment and only one was a failure of the pneumatic dilator.

Recently several articles have appeared indicating the increasing popularity of surgical intervention.[6, 11-13] Allen, Harkins, Moyer and Rhoads[5] in their *Textbook of Surgery* state that, "Among surgeons there is a growing support for the management of cases refractory to or unsatisfactory for bouginage by direct surgical means, thereby avoiding hydrostatic methods." This idea is not consistent with the conclusions of many investigators.[14-16] Complications of surgery include failure to relieve symptoms, peptic esophagitis as well as the mortality and morbidity as illustrated in our series. It is also well-recognized that simple bougies do little in the permanent treatment of this disease. As early as 1921, Plummer noted that the passage of ordinary sounds did not stretch the cardia sufficiently to overcome the obstruction to the food bolus. As previously stated a forceful dilatation must actually rupture the circular muscle fibers of the lower esophagus in order to be successful.

This series is consistent with the findings of others,[9, 14] in that forceful dilatation is a satisfactory method of treatment characterized by a low rate of complications. It is not the object of the authors to condemn the surgical treatment of achalasia, but we feel an attempt at forceful pneumatic dilatation of the esophagus should be made in all cases before operation is considered. Dilatation not only gives very good results but is a simpler procedure of considerably less mortality, medical and financial morbidity.

The fact that those receiving surgical therapy had an average hospital stay of 28 days, while those receiving forceful dilatation had an average hospital stay of 16 days points out that forceful dilatation is less costly to the patient. These figures are somewhat distorted since they come from a teaching hospital where length of hospital stay is often prolonged. One patient treated by forceful dilatation, had a total hospital stay of three days.

om the
xecutive
irector

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

1963 Annual Meeting Attendance

● Registration at the annual meeting, held in Knoxville April 7-10, resulted in an increased attendance. The registration statistics reveal a total of 854 registrants. There were 535 Tennessee physicians registered, 17 guest speakers and visitors, 12 residents and 2 interns, for a total of 566 doctors present. There were 113 exhibitors and 175 members of the Woman's Auxiliary—making a final total of 854 registered for the meeting.

1964 Annual Meeting To Be Held in Memphis

● The 1964 Annual Meeting, to be conducted April 12-15, is scheduled for Memphis. Headquarters will be in the Peabody Hotel. The 1964 meeting was awarded to Memphis as a result of action taken by the House of Delegates on April 9.

"State" Is Dropped From Name of Association

● An amendment to the Constitution was adopted at the annual session of the House of Delegates which eliminated the word "State" from the name of the Association. If you will note the front cover of the Journal and a recent announcement mailed to all members, the name of the Association now officially is "TENNESSEE MEDICAL ASSOCIATION." All future correspondence and designations to the Association should be changed to include the new name—Tennessee Medical Association.

June Journal to Be Reports of House Of Delegates

● A complete report of the transactions of the House of Delegates on the various resolutions, reports and amendments, acted upon by the House, will appear in the June issue of the Journal. Newly elected officers, abstracts of the reports of Board of Trustees, Council and other pertinent business approved by the Association's House of Delegates will be included in the June Journal.

AMA Annual Meeting In Atlantic City June 16-20

● The 112th Annual Meeting of the American Medical Association will be held in Atlantic City, June 16-20. The meeting of the House of Delegates, business and policy-making body of AMA will be conducted in the Traymore Hotel.

National Legislative Conference

● The National Medical Legislative Conference was conducted in Chicago, April 20-21. More than 500 physicians and state and county society personnel were in attendance. The theme of the conference was to review the 1963 version of the Social Security financed compulsory health care plan and to organize for action to oppose the passage of H.R. 3920 which is the bill presently before the Congress.

The President of every County Society in Tennessee will soon receive a packet of materials entitled, "Operation Hometown" which will contain the suggested program for action to be introduced at the county society level. Seven physicians from Tennessee, representing the three grand divisions of the state, together with staff personnel from the headquarters office attended the conference.

Medical Self-Help Training Program

● The Director of Health Mobilization in the Department of Public Health of Tennessee has been instrumental in establishing a steering committee for the Medical Self-Help

Training Program. The purpose of the committee is to promote Medical Self-Help Training throughout the State. The assistance from the appropriate committees of the county medical societies of the state will provide inestimable value towards the goal desired. This activity is one of the more important ones in the State Civil Defense program.

Annual Meeting Expenses Deductible

● With the 1963 annual meeting of the Tennessee Medical Association just completed, questions have been arising concerning the new income tax expense account regulations.

Physicians can deduct, as a business expense, the cost of travel to and from the annual meeting and the other incidental costs of meals, room, etc. Under ordinary circumstances, a deduction for the cost of taking your wife to the sessions is not deductible. Each physician should retain a careful record of expenditures in order to substantiate the deduction. In addition, an itemized receipt for each expenditure in excess of $25, and for motel and hotel bills, regardless of the amount, must be retained.

To All My Patients

● A newly designed office plaque inviting patients to discuss professional services and fees with their doctor is now available from the American Medical Association.

Suitable for wall or desk display in the doctor's office, the plaque has a durable, attractive beige plastic frame, 6" x 10½". The message printed in beige on a dark brown background is protected by a clear plastic covering.

The new plaque serves as an excellent public relations tool for the physician by introducing a subject in which his patients have a deep interest, yet for various reasons, are often reluctant to discuss. Priced at $1.25 each (postpaid) the plaque may be obtained by sending a check or money order to: Order Department, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

Schools Share AMA-ERF Funds

● Checks from the American Medical Association Education and Research Foundation (AMA-ERF) totaling $51,942.01 were presented to the Deans of Tennessee's three medical schools recently. The checks were presented by appropriate officers of the State or County Medical Society, and the Chairman of the Association's Committee of the American Medical Association Education and Research Foundation. The breakdown showed that the University of Tennessee Medical Units received $22,480.93; Vanderbilt University School of Medicine, $21,167.08; and Meharry Medical College, $8,294.00.

Interest Items

● Read, by all means, article "Professional Liability and the Physician" published in February 23, 1963, issue of JAMA—Excellent review of critical problem—Voluntary health insurance reached new highs in 1962 . . . 140 million covered by some form of protection . . . $7.1 billion paid out in benefit payments . . . Selective Service Act, including provision for drafting of doctors, enacted . . . It retains provision for extra pay for medical and dental officers . . . Average auto owner pays a total of 10.1 cents per mile for ownership and operating costs, according to US Bureau of Public Roads.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

Mass Immunization With Sabin Oral Vaccine Urged by House of Delegates

● A resolution, introduced and passed by the House of Delegates at the annual meeting in Knoxville, calls for all component medical societies in Tennessee to conduct coordinated mass immunization programs as a public service, utilizing Sabin oral vaccine. The vaccine has been recommended by the Surgeon General of the United States Public Health Service, and by other competent medical authorities, for use in eliminating poliomyelitis. The public service committee of TMA will make recommendations to all county societies in the near future for carrying out the program on a state-wide basis.

—o—

"Operation Hometown"

● A national legislative program for county medical societies called "Operation Hometown" was unveiled in Chicago April 20th and 21st. The intensive program, which will be implemented in Tennessee immediately, is designed to reach every segment of the Tennessee public through every possible medium, to help offset the mounting pressure for King-Anderson legislation (H.R. 3920) in the 88th Congress. The medical profession's voice is a small one, and to be effectively heard in Congress, it must be amplified with that of the public's widespread protest.

"Operation Hometown" is a committee project requiring seven physicians to organize a program of enlisting allies, forming a speakers bureau, taking advantage of newspaper, radio and TV mediums, distributing materials, making congressional contacts, and promoting letter-writing campaigns.

Rumors that nothing will happen this year on King-Anderson is a misnomer. The arguments that the tax reduction bill will consume all of the House Ways and Means Committee's time this year is a method to lull our forces into a sense of complacency. If the tax reduction program runs into trouble or delay—in either the House, the Senate, or in joint conference—the Administration might become desperate to get some major bill through Congress and King-Anderson could be forced out of the Committee.

Hearings are scheduled for mid-July on the bill. The time to build and expand public support for our position is NOW.

—o—

FDA Warns Against Anticancer Compound

● "American Weekly," a nationally distributed Sunday newspaper magazine, carried a 2-part story on Laetrile, a new drug compound to treat cancer. The U.S. Food and Drug Administration has said it "has seen no competent, scientific evidence that Laetrile is effective for the treatment of cancer." The drug is compounded from apricot kernels and, at present, based on a federal court order, may not legally be manufactured or distributed in the United States or imported from Canada. The possibility that the stories might lead some cancer victims to go to Canada to get the drug, as happened before in the case of a U. S. banned arthritis drug, has some FDA officials disturbed.

Plumbicare, Electricare, Autocare, and Embalmicare

● The following is reprinted from Medical Economics and is one citizen's method of answering government arguments for federal control of medicine.

"I've spoken out against Social Security medicine in open debate at labor union meetings, in letters to my Congressmen and in letters to the newspapers," says Walter E. Mauger, Jr., a San Mateo, Calif. mechanic. "My hobby is fighting socialism in any form." In his fight, Mr. Mauger wields a traditional crusader's weapon: satire. Here, for instance, is one of his satires on Social Security medicine, which newspapers loosely call Medicare. This is condensed from the San Mateo Times & News Leader:

"I am seeking support for a Plumbicare bill to be pushed through this session of Congress. Plumbicare, financed by a 1 per cent payroll tax through Social Security, will pay all our plumbing bills after 65. I cannot abide the thought of our poverty-stricken senior citizens being faced with staggering plumbing bills during their golden twilight years. . . . There is little need for me to outline arguments in favor of this proposed legislation, as they are the same as (the arguments) for Medicare. . . .

"If we can successfully force passage of (Plumbicare), the way will then be clear for Electricare to take care of all electricians' bills, Autocare to take care of car repairs, and eventually Embalmicare to take care of the big breakdown. . . .

"Urge your Congressman to support this legislation!"

——0——

Health Insurance Climbs Steadily

● Health insurance benefit payments are averaging more than $19 million a day. Ten years ago payments averaged less than $6 million a day. Total benefits paid out each year now top $7 billion, with more than half accounted for by commercial insurance companies and the rest coming from other insurers, including Blue Cross-Blue Shield. Latest figures show 140 million people covered by hospital insurance, 130 million by surgical insurance and 97 million by regular medical insurance policies.

——0——

AMA-ERF Grants To Tennessee

● Three Tennessee medical schools—University of Tennessee, Vanderbilt University and Meharry Medical College—were among 96 United States and Canadian medical schools receiving grants recently distributed from the American Medical Association's Education and Research Foundation.

AMA-ERF distributed a record $1,461,811 to medical schools this year. The University of Tennessee received $22,480.93, Vanderbilt University $21,167.98, and Meharry Medical College $8,294.00 of the total.

Only 12 schools in the nation received more than the University of Tennessee's grant and only 5 states (New York, California, Pennsylvania, Illinois, and South Carolina) received more money than Tennessee's combined total of $51,942.91.

——0——

Thought for the Month

● The enemies a man makes by taking a decided stand generally have more respect for him than the friends he makes by being on the fence.

Summary

The treatment of 21 patients with achalasia has been reviewed. Of these 21 patients, 18 received definitive therapy (Heller procedure) or of forceful dilatation. A comparison of the results and complications of these two forms of therapy are presented and indicates that medical dilating procedures give better results.

Conclusions

In the definitive treatment of achalasia a trial of forceful dilatation of the esophagus should be employed in all patients before surgical intervention. Dilation gives good results with fewer complications, and is a simple procedure. There is less morbidity, mortality and economic hardship on the patient as well as better immediate relief of symptoms.

Addendum. Since this paper was completed 2 additional patients were treated by pneumatic dilation. Immediate results were excellent with no morbidity and hospital stays of eight days.

References

1. Ingelfinger, F. J.: The Physiologic Background of Heart Burn, Esophagitis and Cardiospasm, Arch. Int. Med. 105:770, 1960.
2. Ingelfinger, F. J.: Esophageal Motility, Physiol. Rev. 38:533, 1958.
3. Ferreira-Santis, R.: Aperistalsis of the Esophagus and Colon (Mega-esophagus and Megacolon) Etiologically Related to Chagas Disease, Amer. J. Dig. Dis. 6:700, 1961.
4. Alnor, P.: On the Pathogenis of Cardiospasm, J. Thoracic Cardiovascular Surg. 36:141, 1958.
5. Allen, J. G., Harkins, H. N., Moyer, C. A. and Rhoads, J. E.: Surgery Principles and Practice, J. B. Lippincott Co., Philadelphia, 1957, pp. 616.
6. Drake, Emerson H.: Surgical Treatment of Cardiospasm, New England J. Med. 266:173, 1962.
7. Terracol, G., and Sweet, R.: Diseases of Esophagus, Philadelphia. W. B. Saunders, 1959, pp. 225.
8. Plummer, H. S.: Diffuse Dilatation of the Esophagus Without Anatomic Stenosis (Cardiospasm). A Report of 91 Cases, J.A.M.A. 58:2013, 1912.
9. Plummer, H. S., and Vinson, P. P.: Cardiospasm: A Report of 301 Cases, M. Clin. North America 5:355-359, 1921.
10. Olsen, A. M., Harrington, S. W., Moersch, H. M., and Anderson, H. A.: Treatment of Cardiospasm: Analysis of 12-year Experience, J. Thoracio Surg. 22:164, 1951.
11. Hawthorne, H. R., and Frobese, A. S.: Treatment of Achalasia, Ann. J. Gastroenterol. 36:143, 1961.
12. Le Roux, B. T., and Wright, J. T.: Cardiospasm, Brit. J. Surg. 48:619, 1961.
13. Steichen, F. M., Heller, E., and Ravitch, M. M.: Achalasia of Esophagus, Surgery 47:846, 1960.
14. Moersch, H. J.: Cardiospasm: Its Diagnosis and Treatment, Ann. Surg. 98:232, 1933.
15. Browse, N. S., and Carter, S. J.: The Late Results of Heller's Operation in the Treatment of Achalasia, Brit. J. Surg. 49:59, 1961.
16. Barrett, N. R., and Franklin, R. H.: Concerning Unfavorable Late Results of Certain Operations Performed in Treatment of Cardiospasm, Brit. J. Surg. 37:194, 1949.
17. Wangensteen, O. H.: Physiologic Operation for Mega-esophagus (Dystonia, Cardiospasm, Achalasia), Ann. Surg. 134:301, 1951.

BEGINNING OF CENTRAL STATE HOSPITAL

Central State Hospital was opened for patients in 1852, under the superintendency of Dr. William A. Cheatham, who in his first report gives an excellent description of the new building. It is of interest that there was provision on the second floor of the center building of a chastely furnished room for Miss Dix "whenever it shall comport with her convenience to visit the institution." In 1896 a portrait of Miss Dix was presented to the hospital by friends.

Some remarks about the plumbing are amusing. "The baths and water closets originally put in the building were unfortunately entrusted to persons profoundly ignorant of their intent and object and their practical operation soon became a nuisance of such magnitude as to threaten seriously the health as well as to destroy the comfort of the entire community." The baths were so miserably constructed that the water fell in abundance wherever it was not needed; and from a failure to supply proper means of escape it flooded the rooms; and they were finally abandoned in despair." (From the *Central State Hospital Bulletin.)*

The inter-relationship of these two diseases has always been of interest because of their effects, one upon the other, which are possible. These have been considered by the author.

Thyroid Disease and Diabetes Mellitus*

WILLIAM LAW, M.D., Knoxville, Tenn.

The availability of insulin, iodine and antithyroid drugs has made this subject of less clinical significance than in previous years, but even today the coincidental presence of thyrotoxicosis and diabetes mellitus poses a serious problem. Soon after the recognition of these two diseases, it was observed that they often complicated one another and not only had certain clinical similarities, but also certain physiologic characteristics in common. To account for these findings several hypotheses were considered: (1) The two diseases were causally related; that is, toxic goiter caused diabetes. (2) Toxic goiter may unmask latent diabetes. (3) The apparent increased incidence of each disease in the presence of the other is due merely to more careful observation of the patient. In this paper we will review certain facts and findings that have led to our present concepts about this subject.

Despite the vast information that has accumulated about diabetes mellitus, it must still be described as a clinical syndrome of unknown etiology, characterized by hyperglycemia and glycosuria. Knowledge about the disease has accumulated slowly, beginning in the sixteenth century when Willis recorded the sweet taste of diabetic urine. A century went by before the sweet material was identified as glucose, and another century and a half passed before, in the mid-nineteenth century, it became possible to quantitatively measure the glucose in blood and urine. Soon after this the pancreatic islets were described, and at the opening of this century it was known that total pancreatectomy produced diabetes. The diabetic factor was isolated by Banting and Best in 1921 and was made commercially available as insulin in 1922.

The fundamental defect in diabetes mellitus seems to be an absolute or relative lack of insulin which causes certain abnormalities in the metabolism of foodstuffs, while the primary function of insulin is probably the facilitation of glucose metabolism. When insulin is deficient hyperglycemia and glycosuria occur, and there is decreased synthesis and increased catabolism of both protein and fat, the excessive utilization of fat as fuel leading to ketosis. Thus, in diabetes there is a disturbance of metabolism with both a primary underutilization and a secondary overproduction of glucose.

The thyroid hormone probably affects all tissues, regulating their rate of metabolism, probably through some type of enzyme action. The effects of excess thyroxin on carbohydrate metabolism are usually proportional to the degree of alteration in the metabolic state, hyperthyroidism making diabetes more severe and hypothyroidism reducing its severity.[1] The nature of the insulin resistance seen in thyrotoxicosis is unexplained. Wilder[2] pointed out that the increased metabolism present with fever, pregnancy, and thyroxin administration all decreased the glucose tolerance, whereas, the increased metabolism seen after exercise increased the glucose tolerance and the sensitivity to insulin. The nature of this striking difference has never been adequately explained.

Experimentally, thyroid substance has several characteristic physiologic actions. The rate of carbohydrate absorption from the intestinal tract and the rate of carbohydrate metabolism in the liver are both increased. Glycogenolysis is increased, leading to decreased glycogen in the liver, heart and muscle, and there is increased mobilization and catabolism of fat and protein. It will be noted that these abnormalities are in many ways similar to those described in diabetes and lead to an increased level of blood sugar. Work with

*Read at the meeting of the Tennessee Diabetes Association, April 10, 1962, Memphis, Tenn.

partially pancreatectomized animals has shown significant species variation, but generally the diabetogenic action of thyroxin is proportional to the increase in metabolism. Thus, thyroxin is not a diabetogenic hormone in the same sense as is growth hormone. Hyperthyroidism is associated with a 3% incidence of diabetes while in acromegaly, for instance, there is a 12% incidence. Houssay[3] fed thyroid substance to partially pancreatectonized dogs, and, depending on the dosage and duration of administration, was able to produce a temporary ("thyroid diabetes") and a permanent ("metathyroid diabetes") diabetic state. Wilder[2] felt that there was no qualitative disturbance of carbohydrate metabolism in thyrotoxicosis but rather an exaggeration of the normal metabolism. He noted that with glucose injection the respiratory quotient rose even more rapidly than normal and contrasted with the slow small rise in diabetes.

From a histologic standpoint, Goddard[4] reported that the thyroid acinar cells could be divided into four types, type 2 being the tall columnar, actively secreting cell which usually comprises less than 1% of the total cells. In Graves disease the percentage of type 2 cells is greatly increased, being as high as 50% at times. Hyperglycemia would cause an increase in type 2 cells but Goddard doubted that this would ever rise above 5%. In diabetic patients he found that one-third of the thyroids contained between 5 and 10% type 2 cells. Most workers in this field, however, doubt that diabetes has any specific affect upon the thyroid cells other than that secondary to the general metabolic changes.

The first report of diabetes mellitus and thyrotoxicosis occurring simultaneously in the same patient was by Dumontpallier in 1867. Fifty-six cases were collected in 1909, most of these dying in coma. Observers during this period noted the increased incidence of glycosuria in hyperthyroid patients. Naunyn and von Nooden, and later Fitz, before the discovery of insulin, believed that true diabetes mellitus was seen in thyrotoxicosis only in the patients constitutionally predisposed to diabetes.[4] With regard to the genetic background in the two diseases, Joslin[6] has reported a positive family history of diabetes in 67% of his 25 year diabetic patients, while Ingbar and associates[7] has demonstrated elevated radioiodine uptakes in 50% of a selected group of relatives of patients with Graves' disease. It is generally agreed that the incidence of known thyrotoxicosis in diabetic patients and of known diabetes in thyrotoxic patients is greater than their individual appearance in the general population.[8] This is true also of diabetes and hypothyroidism, despite the amelioration of diabetes by hypothyroidism, and it is assumed that closer observation of these patients is responsible for the increased incidence of coincidental diagnoses. It is of interest, however, that the increased incidence of diabetes and hyperthyroidism is seen primarily with toxic nodular goiter and not with toxic diffuse goiter, the incidence of diabetes being 4 to 5% in the former and the normal 1.7% in the latter.[1] This difference is most likely due to the age groups involved, since diabetes and toxic nodular goiter both have peak incidences in the sixth and seventh decades while toxic diffuse goiter is most common in the third and fourth decades. Wilder,[2] too, thought that thyrotoxicosis merely precipitated diabetes in a predisposed person.

Joslin,[6] in 1928, called attention to the striking clinical similarities of these two diseases, each presenting with weight loss, weakness, tachycardia and increased metabolism. Each disease accentuated and accelerated the downward course of the other, thyrotoxicosis raising the caloric need and diabetes decreasing the ability to utilize calories. Joslin also recorded the great incidence of glycosuria in thyrotoxic patients as compared with the other surgical cases admitted to the hospital: Graves' disease—38%, Plummer's disease—28%, nontoxic goiter—15%, gallbladder surgery—16%, other surgery—14%. At about the same time, John[9] demonstrated hyperglycemia in 10% of his thyrotoxic patients, and most of the glucose tolerance tests he did on these patients were of the diabetic type. He noted, however, that there was no good correlation between the severity of the hyperthyroidism and the abnormality of the glucose tolerance tests. This strengthened his impression that true diabetes appeared only in

predisposed patients. He also noted that the glycosuria was often the result of a decreased renal threshold for glucose, since coincidental blood and urine studies in the same patient showed glycosuria at lower blood sugar levels in the thyrotoxic state than in the euthyroid state after cure of the thyrotoxicosis.

The diagnosis of either hyperthyroidism or diabetes in the presence of the other is at times difficult. The BMR. is sometime unreliable since it may be as high as (+30%) in acidosis. The PBI and radioiodine uptake studies are probably reliable in acidosis, however. Because of the confusing glycosuria and hyperglycemia seen in thyrotoxicosis, Joslin[10] thirty years ago, recommended that the diagnostic levels of the fasting and the 2-hour postprandial blood sugar levels be raised from 130 mg. to 150 mg. %, and from 160 mg. to 200 mg. % respectively. He found that patients with blood sugar levels at or above these figures would nearly always be true diabetics. He now believes that any patient with thyrotoxicosis whose 3-hour glucose tolerance test level is not back to normal has true diabetes mellitus, as do any patients requiring insulin or developing acidosis. Hyperthyroidism should be suspected in any diabetic patient with a goiter or with unexplained auricular fibrillation, weight loss, or increased severity of the diabetes.

In the years before insulin and iodine, the occurrence of either diabetes or hyperthyroidism was extremely serious and often led to an early death. Thyroidectomy was accomplished in multiple stages, often preceded by injections of boiling water and by iolated ligation of thyroid blood vessels. The combination of the two diseases was a catastrophe, since the presence of the one made therapy for the other nearly impossible[11] and even after iodine and insulin were introduced, these patients were often sick for a long period. In the absence of hyperthyroidism, subtotal thyroidectomy was found to have no effect on diabetes.[5] While total thyroidectomy did cause some amelioration of the diabetic state,[12] it was noted that the degree of hypothyroidism required to accomplish this was quite severe and that, usually, even small doses of thyroxin given to control the myxedema were sufficient to return the diabetes to its former state of severity. When thyrotoxicosis was present, however, subtotal thyroidectomy nearly always had a beneficial effect upon the diabetes. At the present time the use of thiourea derivatives, iodine, and insulin has made the management of these patients relatively easy. The BMR. is brought to normal with prophylthiouracil after which the patient is allowed to regain an adequate nutritional status, and then definitive therapy with either surgery or radioiodine is carried out with no significant increase in risk. If the thyrotoxicosis is mild, operation may be performed with the aid of iodine preparation alone, or radioiodine may be given before other treatment, followed, if necessary, by propylthiouracil and/or iodine. The simultaneous occurrence of thyroid storm and diabetic acidosis is a medical emergency of the gravest type, but fortunately is quite rare. Joslin has seen only 5 such cases and only 9 have been reported.[13] Once diagnosed, the usual treatment for each condition should be carried out, keeping in mind the extremely large fluid requirements that will be present.

The combination of diabetes mellitus and untreated myxedema is very rare. Joslin has reported 15 cases, only 3 of which, however, all juveniles, developed diabetes while still hypothyroid. The two diseases were diagnosed simultaneously in 3 other cases reported by Rupp and associates[14] and Baron[15] saw one case in which diabetes developed in an untreated myxedematous patient. Thus, diabetes develops in hypothyroidism virtually only when the disease is treated and the patient is euthyroid, a situation in which one would expect the normal incidence of diabetes.

Summary

(1) Some features of carbohydrate metabolism, as affected by insulin and thyroxin, have been presented.

(2) Many abnormalities caused by insulin deprivation are mimicked by thyroxin excess.

(3) Clinical features of the inter-relationships between diabetes and hyperthyroidism have been discussed.

(4) The observed increased incidence of

each of the two diseases, in the presence of the other, is more apparent than real, thyrotoxicosis serving to unmask latent diabetes.

References

1. Regan, J. F. and Wilder, R. M.: Hyperthyroidism and Diabetes, Arch. Int. Med. 65:1116, 1940.

2. Wilder, R. M.: Hyperthyroidism, Myxedema and Diabetes, Arch. Int. Med. 38:736, 1926.

3. Houssay, B. A.: Thyroid and Metathyroid Diabetes, Endocrinology 35:158, 1944.

4. Goddard, J. W. and Sommers, S. C.: Thyroid Stimulation in Diabetes Mellitus, Diabetes 3:383, 1954.

5. Fitz, R.: The Relation of Hyperthyroidism to Diabetes Mellitus, Arch. Int. Med. 27:305, 1921.

6. Joslin, E. P. and Lahey, F. H.: Diabetes and Hyperthyroidism, Am. J. Med. Sci. 176:1, 1928.

7. Ingbar, S. H., Freinkel, S. H., Dowling, J. T. and Kumagai, L. F.: Abnormalities of Iodine Metabolism in Euthyroid Relatives of Patients with Graves' Disease, J. Clin. Invest. 35:714, 1959.

8. Balfour, W. M. and Sprague, R. F.: Association of Diabetes Mellitus and Disorders of Anterior Pituitary, Thyroid, and Adrenal Cortex, Am. J. Med. 7:596, 1949.

9. John, H. J.: Hyperthyroidism and Diabetes, Am. J. Med. Sc. 175:741, 1928.

10. Joslin, E. P. and Lahey, F. H.: Hyperthyroidism and Diabetes, Ann. Surg. 100:629, 1934.

11. McDonough, F. E., Haines, S. F. and Kepler, E. J.: Treatment of Hyperthyroidism Complicated by Diabetes, Proc. Staff Meet. Mayo Clin. 16:599, 1941.

12. Rudy, A., Blumgart, H. L., and Beslin, D. D.: Carbohydrate Metabolism in Human Hypothyroidism Induced by Total Thyroidectomy. III. A Case of Diabetes Mellitus Treated by Total Ablation of Normal Thyroid Gland, Am. J. Med. Sc. 190:51, 1935.

13. Lakin, M. L., Bradley, R. F., and Bell, G. O.: Acute Hyperthyroidism in Severe Diabetic Ketoacidosis, Am. J. Med. Sc. 241:443, 1961.

14. Rupp, J. J., DiGeorge, A. M. and Paschkis, K. E.: Hypothyroidism and Diabetes Mellitus, Diabetes 4:393, 1955.

15. Baron, D. N.: Hypothyroidism and Diabetes Mellitus, Lancet 269:796, 1955.

Renal Damage Associated with Chronic Phenacetin Overdosage—A. Rapoport, L. W. White, G. N. Ranking: Ann Intern Med 57:970, 1962.

Two patients exhibiting renal damage associated with chronic acetophenetidin (phenacetin) overdosage are reported. Some of the extensive European experience with this association is reviewed. The paucity of American publications in this regard is surprising. Because symptoms of "phenacetin nephritis" are relatively insignificant and nonspecific early in the disease, one must resort to direct questioning of patients with impaired renal function and/or urinary tract infection, to establish a diagnosis. Especially is this the case in patients with necrotizing papillitis. Noteworthy features of the present cases are a history of peptic ulcer, severe metabolic acidosis disproportionate to the degree of azotemia, the presence of urinary tract infection, histologic evidence of interstitial nephritis associated with pyelonephritis, the mildness of the proteinuria, the absence of hypertension, and the presence, in the urine, of large numbers of "glitter" cells and macrophages. Both patients improved upon discontinuing the acetophenetidin-containing analgesics and treating their urinary infections. One patient had large numbers of double refractile crystals in necrotic papillae from her kidney.

CASE REPORT

Femoral Hernia Complicated by Strangulation of a Meckel's Diverticulum*

James A. O'Neill, Jr., M.D. and Panagiotis N. Symbas, M.D., Nashville, Tenn.

Since the year 1700 when Littre[1] described 3 cases of strangulation of an intestinal diverticulum in inguinal hernias, attention has only occasionally been drawn to additional occurrences of this condition. The diverticulum referred to is that named for Johann Meckel,[2] who classified this entity. It is estimated that 1 to 3% of individuals have this vestige which is the result of a failure of obliteration of the vitelline or oomphalomesenteric duct at about the seventh week of fetal development.[3] Some maintain an umbilical attachment but most do not. Of the possible difficulties associated with Meckel's diverticulum, the complication of herniation is less frequent than diverticulitis, volvulus, intussusception, or hemorrhage. Herniation occurs more frequently into the inguinal and umbilical regions than it does into the femoral area.[4] Of 1605 cases of complications of Meckel's diverticulum reported by Moses,[5] only 11.7% were due to incarceration in hernias. Although herniation of such a diverticulum occurs more commonly in males, femoral herniation occurs more frequently in females; it also occurs more often on the right side. The incidence of femoral hernia is 2.5% in the general population with hernias, although the percentage is higher in the female population. The average age in one series of herniated diverticula was fifty years.[7] None of the pediatric cases reported by Gross had a Littre's hernia.[3]

We may conclude that incarceration and strangulation of a Meckel's diverticulum in a femoral hernia is a rare occurrence. To date we have been able to find only 40 instances of strangulated Littre's femoral hernia reported in the world literature since 1701.[4,6-13] This case is being recorded to call attention to this entity when a femoral mass is encountered.

CMH, a 37 year old white married man was admitted to the Veterans Administration Hospital, Nashville, in June, 1961. He stated that 2 years previously, he had noticed a right inguinal bulge which was always easily reducible. However, 6½ hours prior to admission, after lifting some heavy machines, he had severe right inguinal pain and recurrence of a mass in this area which was not reducible. The pain increased in severity but was not associated with nausea, vomiting, chills, fever, or symptoms of obstruction.

The patient had been observed previously at this hospital in 1948 for cramping pain in the right lower quadrant which was initially thought to be that of acute appendicitis. However, the symptoms subsided and he was discharged without operation. No hernia was noted at that time, and he had no further gastrointestinal symptoms prior to the present illness.

Laboratory studies were all essentially within normal limits.

Physical examination. T. was 98.6, P. 80, R. 16, and B.P. 140/95. The patient appeared as a well-developed, well-nourished white man in severe pain. The abdomen was soft and flat. No organs, masses, or abdominal tenderness could be found, and bowel sounds were normally active. A tense, tender, irreducible bulge, 3 cm. in size, was present inferior to the right inguinal ligament; there was no redness, cyanosis, or crepitation of the skin surrounding this mass. Rectal examination was within normal limits, and no blood was seen.

A diagnosis of incarcerated right femoral hernia was made, and the patient was brought to the operating room shortly thereafter. Under spinal anesthesia, a standard right inguinal herniorrhaphy incision was made and the inguinal ligament exposed. This was divided at its medial attachment to the pubic tubercle to reduce the femoral hernia. A necrotic portion of prevesicle fat and a Meckel's diverticulum were present within the sac. The diverticulum, which had a separate mesentery, had a brownish-red discoloration suggesting compromised blood supply, and, in addition, there was some necrotic-appearing fat at its distal extent. Perforation had not occurred. The diverticulum and the necrotic prevesicle fat were excised and the ileum repaired. A Cooper's ligament type repair of the hernial defect was performed, and the divided inguinal ligament was reapproximated. Microscopic sections of the Meckel's diverticulum showed areas of ectopic gastric mucosa. (Figs. 1 and 2.)

Postoperatively, the patient developed a superficial wound infection which on culture grew out *Staphylococcus aureus,* coagulase-positive. This was treated by drainage, soaks, and antibiotics with complete healing. When he was last seen 6 months postoperatively, the wound was well-healed, without evidence of recurrence of a hernia.

Clinical Features and Discussion

When a patient has a strangulated Meckel's diverticulum in a femoral hernia, the

*From the Department of Surgery, Vanderbilt University School of Medicine and the Veterans Administration Hospital, Nashville, Tenn.

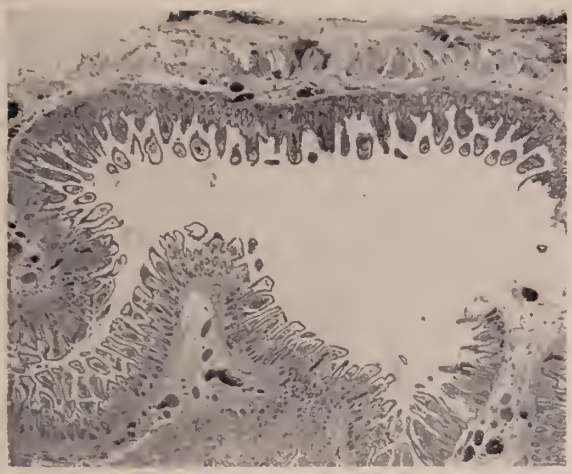


FIG. 1. Low power view of the Meckel's diverticulum showing congestion as well as hemorrhage and cellular infiltration into the wall. Hematoxylin and eosin, X10.

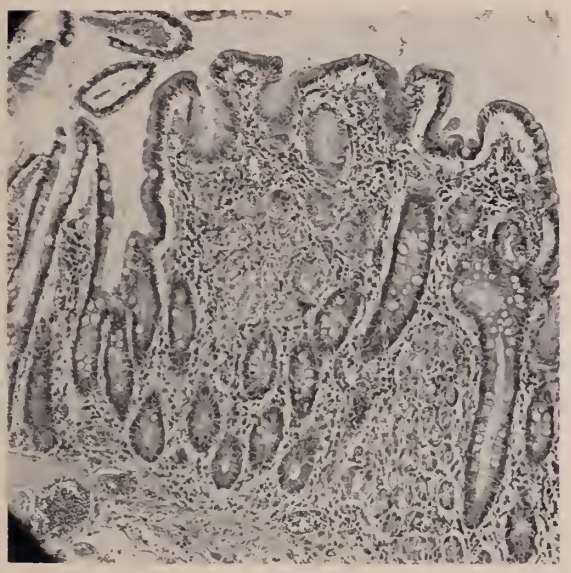


FIG. 2. High power view of an area containing gastric glands. Hematoxylin and eosin, X100.

classical signs of strangulation occur late in the course, presumably since obstruction occurs late.[10] Weinstein[7] even noted fecal fistula as a presenting feature in one-fourth of the cases he collected. Also, hemorrhage may occur and melena may be a prominent feature. The differential diagnosis should include enlarged inguinal lymph nodes, because of any number of underlying processes, hydrocele of the cord, varicosity of the greater saphenous vein, femoral artery aneurysm, psoas abscess, lipoma of the femoral region, and various other cysts and tumors. At the time of operation, a partially-strangulated portion of ileum is found and it is necessary to be certain that a Meckel's diverticulum is present and not a Richter's type hernia. The Meckel's malformation may be recognized by its position on the antimesenteric border of the ileum, somewhere along the distal 66 inches. It may or may not possess a mesentery, and in approximately 15% of the cases, there is heterotopic gastric, duodenal, or colonic mucosa, or ectopic pancreatic tissue.[9]

In none of the reported cases was a diagnosis of incarcerated Meckel's diverticulum made. Although it is possible to demonstrate Meckel's diverticula by contrast roentgen studies,[14] such methods should not be applied in these cases. The most that can be done is to recognize an incarcerated femoral hernia and to rapidly institute treatment before further complications ensue. Adequate preoperative care should be given as indicated. Treatment consists of excision of the diverticulum either through the inguinal incision or a separate peritoneal opening. Care must be taken in closing the bowel so it is not unduly constricted. Finally, the hernial defect should be repaired, using one of the accepted methods of femoral hernia repair. (A Cooper's ligament type herniorrhaphy was performed in this case.)

In cases where rupture of a strangulated diverticulum has occurred, one may first resect the anomaly, repair the ileum, and drain the infection. Herniorrhaphy may then be deferred until a later date.

Summary

A case of strangulation of a Meckel's diverticulum in a femoral hernia is presented with a brief review of the literature.

A discussion of clinical features is also given noting that signs and symptoms appear late in the course. Treatment consists of prompt surgical excision of the diverticulum, repair without constricting bowel lumen, and herniorrhaphy.

References

1. Littre, A.: Observation Sur Une Nouvelle Esp. 300, 1719.

2. Meckel, J. F.: Ueber die Divertikel am Darmpice de Hernie, Hist. Acad. roy. sc. 1700, Paris, kanal, Arch. F. Physiol. 9:421, 1808.

3. Gross, R. E.: The Surgery of Infancy and Childhood, W. B. Saunders Co. Phila. 1953 p. 211.

4. Ringo, R. E. and Charlton, M. R.: Meckel's Diverticulum and Littre's Hernia; Case. Northwest Med. 39:60, 1940.

5. Moses, W. R.: Meckel's Diverticulum. Report

of Two Unusual Cases, New England J. Med. 237: 118, 1947.

6. Watson, L. F.: Hernia, C. V. Mosby Co., St. Louis. 1948, p. 547.

7. Weinstein, B. M.: Strangulated Littre's Femoral Hernia with Spontaneous Fecal Fistula, Ann Surg. 108:1076, 1938.

8. Payson, B. A., Schneider, K. M. and Victor, M. B.: Strangulation of a Meckel's Diverticulum in a Femoral Hernia (Littre's), Ann. Surg. 144:277, 1956.

9. Jay, G. D., Margulis, R. R., McGraw, A. B. and Northrip, R. R.: Meckel's Diverticulum, A Survey of One Hundred and Three Cases, A.M.A. Arch. Surg. 61:158, 1950.

10. Baum, R. K., and Olch, I. Y.: Meckel's Diverticulum Incarcerated in a Femoral Hernia, California M. 88:386, 1956.

11. Snierson, H. and Cunningham, J. R.: Littre's Hernia, Am. J. Surg. 94:676, 1957.

12. Strohl, E. L. and McArthur, S. W.: Incarcerated Meckel's Diverticulum in Femoral Hernia, A.M.A. Arch. Surg. 38:783, 1939.

13. Swain, J.: Strangulation of a Meckel's Diverticulum in a Femoral Hernia, Med. J. Aust. 47: 297, 1960.

14. Berne, A. S.: Meckel's Diverticulum: X-Ray Diagnosis, New England J. Med. 260:690, 1959.

SAMA EXPRESSES OPPOSITION TO FEDERAL LOAN FUND FOR MEDICAL STUDENTS

The Student American Medical Association has expressed its opposition to the use of federal funds for medical student loans, which are now being considered in public hearings on H.R. 12, in a telegram to Congressman Oren Harris (D.-Ark.).

The SAMA House of Delegates, which represents the majority opinion of 18,000 medical students, stated that SAMA considers loans rather than scholarships to be the "least offensive or least objectionable" possible action on the part of the Federal government. However, the group stated that new or potential sources of monetary aid had not been fully explored.

Since that time, according to Brooks, the AMA-ERF loan program has proved to be a great success and has granted loans totaling more than 9 million dollars to over 3,000 medical students and 1,700 residents and interns.

Brooks said that the success of AMA-ERF proves that financial assistance for medical students can be obtained without turning to the Federal government for assistance.

"SAMA in 1954 was instrumental in developing the concept of a loan fund, such as AMA-ERF started, and we will continue our efforts along these lines," Brooks said. "While the amount of funds necessary for such a loan program as H.R. 12 proposes may be a minor amount in the federal budget, it cannot be a source of satisfaction to us to know that we are among the ever-increasing throng that turns to the Federal government for assistance."

Brooks stressed that it is the contention of SAMA that at the present time the need for loans to medical students is being met through other sources and the necessity for Federal funds is yet to be demonstrated.

CLINICAL NOTES FROM THE TENNESSEE HEART ASSOCIATION

HAZARDS OF ANTIHYPERTENSIVE AND DIURETIC THERAPY: Hypokalemia and Hyperkalemia

CRAWFORD W. ADAMS, M.D.
Nashville, Tenn.

The recent introduction of improved antihypertensive and diuretic therapeutic compounds (benzothiadiazine derivatives) into the field of clinical medicine has proved beneficial to a large segment of the population. Although effective, these new agents may produce sudden and even lethal electrolyte disturbances in the human organism. Redistribution or depletion of potassium usually accompanies sodium excretion following the administration of these potent diuretic and antihypertensive agents. In an effort to curtail this deficit, the administration of potassium has been recommended either in addition to, or in combination with the antihypertensive tablet. Without an adequate initial evaluation of renal function, the indiscriminate use of potassium is hazardous. If renal function and output are inadequate, the administration of potassium results in a progressive rise in serum potassium. On the other hand, in the presence of adequate renal function, additional potassium is usually required to prevent hypokalemia which reportedly occurs as high as 80% in patients receiving the benzothiadiazines.[1] (Fig. 1.)

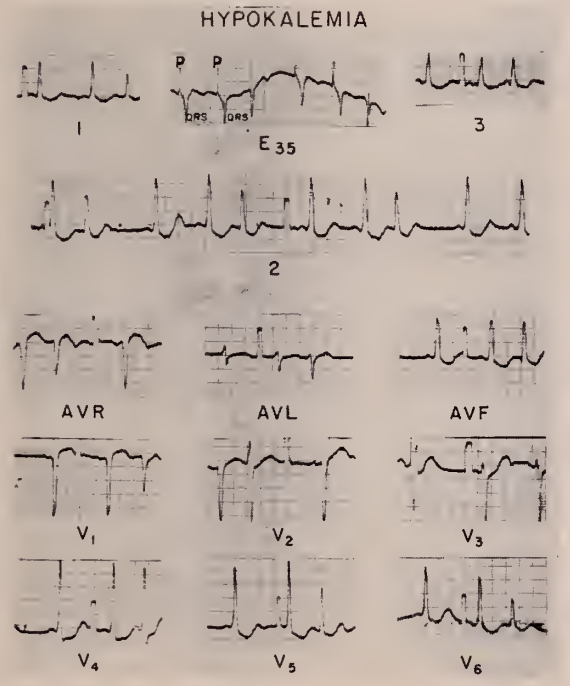


FIG. 1. The electrocardiogram and esophageal lead (E 35) of a 79 year old lady, following prolonged administration of one of the benzothiadiazine derivatives, demonstrate the findings of hypokalemia. The serum potassium was 2.5 mEq/L. There is a shifting of atrial pacemaker activity with periods of atrial and nodal bigeminy. The PR interval varies from 0.10 to 0.14 sec. with changes in the contour of the P waves. The T or T-U waves are broad. There is depression of the ST segments with the QT or QU interval prolonged to 0.52 sec.

The complications following hyperkalemia

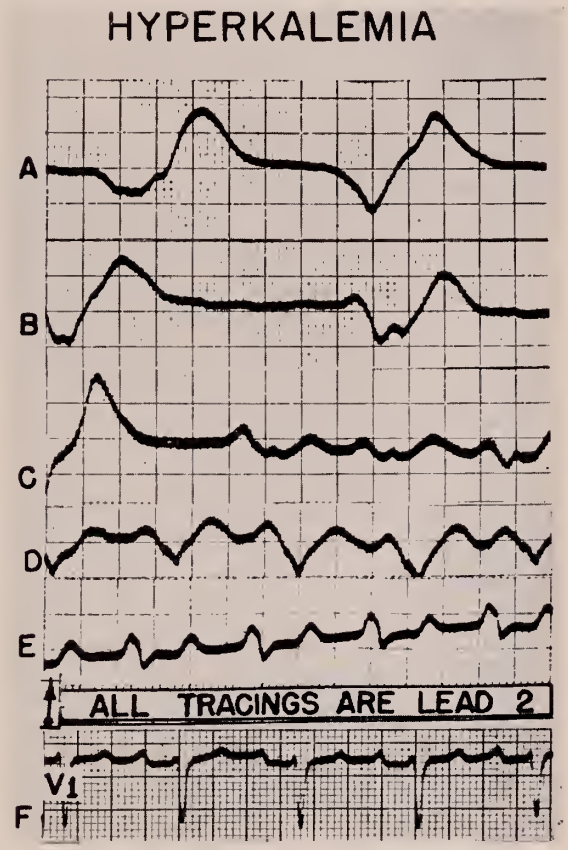


FIG. 2. (A) Complete sinus arrest with an idioventricular rhythm at a rate of 43 per min. The merging of the T wave into the QRS complex demonstrates the large biphasic complexes or sine waves suggestive of hyperkalemia. (B) Immediately after 10 cc. of calcium gluconate was injected intravenously over a period of 3½ min., there was a slight increase in the ventricular rate with periods of ventricular bigeminy. (C) Twenty seconds after initiating an intravenous administration of 50 cc. of isotonic saline solution, the rate increased to 86 per min. (D) Immediately after the administration of 50 cc. of saline infusion, the QRS complexes remain prolonged. (E) One and one-half minutes later, the QRS complexes are narrowed to 0.19 sec. and the T waves are distinctive. (F) Twenty-five hours after the administration of sodium chloride, the normal process of depolarization and repolarization of the myocardium is reestablished. An incomplete A-V block (PR interval 0.22 sec.) remains.

due to the administration of potassium in the presence of renal insufficiency may temporarily be controlled. The primary objective is to modify the cardiac complications until renal function is restored. The administraton of physiologic saline solution may promptly produce dramatic clinical improvement due to the reversion of an idioventricular rhythm to a normal sinus rhythm.[2] (Fig. 2.) The use of calcium salts may antagonize the effect of potassium on cardiac muscle with improvement in cardiac tone. (Fig. 2, B.) Hypertonic glucose solution and insulin may lower serum potassium and improve cardiac function by the deposition of glycogen and potassium into the liver.[3] (Fig. 3, H, I.)

Alterations in the concentration of intracellular potassium produces prompt, and significant electrocardiographic findings.[4, 5] The electrocardiograms of a 20 year old girl with pre-existing hyperkalemia, following potassium administration in the presence of renal insufficiency, demonstrate these findings. (Fig. 3.) An esophageal unipolar electrode 38 cm. from the anterior nares was utilized to better illustrate atrial activity.

With the more frequent and universal use of the benzothiadiazine derivatives alone or in combination with potassium, we may expect an increasing incidence of hypokalemia and hyperkalemia. The electrocardiogram is one of the most sensitive laboratory aids avaliable to detect significant changes in the concentration of potassium. These findings are summarized in table 1, and if recognized early, are reversible.

Table 1

Electrocardiographic Findings

Hypokalemia	*Hyperkalemia*
1. Incorporation of the U wave into the QT interval	1. Broadening and prolongation of the Q wave at the expense of the PQ interval
2. Depression of ST segments	2. Depression of ST segments
3. Lowering, flattening and inversion of T waves	3. Tall, prolonged T waves
4. Elevated, broad or diphasic U waves	4. Disappearance of the U waves
5. Varying A-V conduction time	5. Increase in A-V conduction time
6. Biphasic or inverted P waves	6. Change in the morphology of the P waves with a decrease in amplitude
7. Tachycardia, numerous atrial, nodal or ventricular premature beats	7. Bundle branch block, sinus arrest and ideoventricular rhythm
8. Fairly rapid rate	8. Slow rate

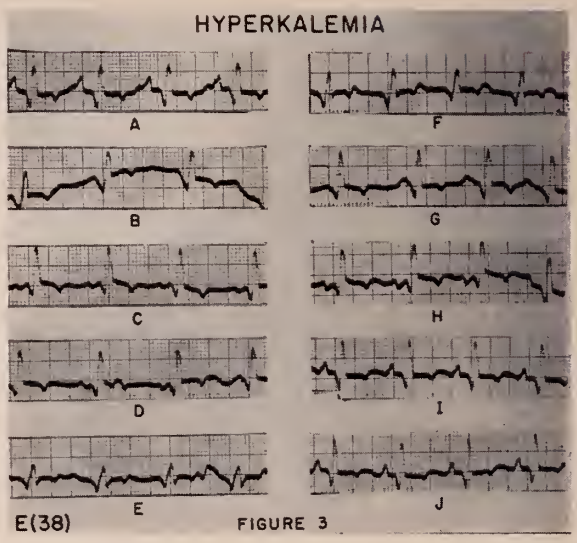


Fig. 3. (A) Esophageal control tracing. There is a normal sinus rhythm at a rate of 80 per min. The PR interval is 0.18 sec. and the P wave is 0.3 mv. The QRS interval is 0.12 sec. and the T waves are inverted. Potassium chloride (0.2 Gm.) and glucose (2.5 Gm.) in 50 cc. of water is started slowly intravenously. (B) Two minutes after completion of the potassium chloride solution which was administered in 6 minutes, there is slowing of the rate to 75 per min. The Q wave becomes broad extending itself at the expense of the PQ interval. the QRS interval is 0.16 sec., and atrial activity is difficult to identify. (C) Nine minutes after completion of 0.2 Gm. of potassium chloride and 4 minutes after the administration of 10 cc. of isotonic sodium chloride, the P waves become biphasic. The PR interval is 0.16 sec. and the QRS interval is 0.12 sec. (D) One minute after the further administration of 0.056 Gm. of potassium chloride, a shifting of the atrial pacemaker occurs. (E) After a total of 0.32 Gm. of potassium chloride was administered over a 26 min. period, there is an increase in rate to 86 per min. associated with an incomplete A-V block. The PR interval varies from 0.28 to 0.32 sec. There is a decrease of the R wave voltage by 50% and the QRS interval is widened to 0.17 sec. (F) Thirty-one minutes after the control tracing, and 2 minutes after an infusion of isotonic sodium chloride, there is improvement in atrial voltage but an incomplete A-V block is present with a PR interval of 0.36 sec. (G) Five minutes after initiating isotonic sodium chloride, there is a decrease in the incomplete A-V block with a shifting of atrial activity. PR interval varies from 0.12 to 0.22 sec., QRS interval is now 0.12 sec. (H) Five minutes after the administration of 6 units of regular insulin, there is an increase in rate and voltage associated with slight elevation of the ST segments. The P wave is biphasic, the PR interval is now 0.21 sec. and the QRS interval 0.11 sec. (I) Fifteen minutes after the administration of insulin, and during the administration of 50 cc. of 50% glucose solution intravenously, the rhythm reverts to a normal sinus rhythm at a rate of 86 per min. The PR interval is 0.18 sec. with improvement in atrial voltage. (J) Nine minutes after the administration of 50 cc. of 50% glucose, the PR interval is 0.16 sec. and the QRS interval is 0.10 sec.

References

1. Talso, P. J. and Carballo, A. J.: The Effects of Benzothiadiazine Diuretics on Electrolyte Metabolism, Monograph on Therapy 5:37, 1960.

2. Adams, C. W.: The Electrocardiogram of the Month, Diseases of the Chest, 35:565, 1959. (Permission for reproduction of Figure 2 granted by publishers of *Diseases of the Chest.*

3. Darrow, S. C.: Blood Fluid Physiology; Role of Potassium in Clinical Disturbance of Body Water and Electrolyte, New England J. Med. 242: 978 and 1014, 1950.

4. Winkler, A. W., Hoff, H. E. and Smith, P. K.: Electrocardiographic Changes and Concentration of Potassium in Serum Following Intravenous Injection of Potassium Chloride, Am. J. Physiol. 124: 478, 1938.

5. Levine, H. D., Merrill, J. P. and Somerville, W.: Disturbance of Cardiac Mechanism in Potassium Intoxication, Circulation 3:889, 1951.

QUADRILATERAL PERIPHERAL VASCULAR DISEASE IN THE YOUNG ADULT; Falls B. Hershey, Morton D. Pareira, and Robert C. Ahlvin, Circulation 26:1261, 1962.

During the past 15 years the authors have collected 7 cases of quadrilateral peripheral vascular disease occurring in 6 young males and 1 young female all having the onset under the age of 35 and presenting as progressive, nonarteriosclerotic occlusion of the smaller primary arteries of all four limbs. There were consistent pathologic findings; distinctive arteriograms and constant clinical features in these cases which the authors believe separate them from ordinary arteriosclerosis, collagen vascular disease and granulomatous arteritis. The occlusive process begins in the smaller arteries initially and eventually progresses to involve the major arteries to all four extremities. Gangrene eventually involves portions of all four extremities with some improvement following sympathectomy. All affected patients were moderately heavy smokers but no other etiologic factors were described. The authors feel that these cases resemble some of the cases originally described by Buerger but none were Jewish. (Abstracted for the Middle Tennessee Heart Association by Charles B. Thorne, M.D., Nashville.)

STAFF CONFERENCE

Nashville General Hospital*

Severe Postoperative Pulmonary Complication

DR. FRANK WHITACRE: The patient for consideration this morning had a sudden and severe postoperative pulmonary complication. Her problem was resolved by prompt diagnosis and treatment. Dr. Troy Bohannon will present an abstract of the case.

DR. TROY BOHANNON: *Present Illness.* This 37 year old white, Gravida IV, Para III, Ab. 1, was admitted to the hospital on March 28, 1963 to have a total abdominal hysterectomy on the following day because of a 4 months' history of uterine bleeding. Her bleeding had not been controlled with a dilatation and curettage or cyclic hormonal therapy. It was suspected also that she might have a submucosal myoma in the right fundal area. This was suggested at the time of her dilatation and curettage on Feb. 5, 1963.

The pathologic diagnosis at the time of D & C and biopsy of the cervix, was chronic ulcerative cervicitis and a benign ulcerated endometrial polyp.

Her last normal menstrual period was on Dec. 1, 1962. Since that time she had had heavy and intermittent vaginal bleeding requiring up to six pads a day. She had never had irregular bleeding before and the bleeding continued after the D & C, and in spite of cyclic hormone therapy. Therefore, it was decided that total abdominal hysterectomy was the treatment of choice, and she was admitted for this procedure.

Past History. She had had no previous operations, but had been admitted to another hospital approximately 6 months previously with an episode of severe right lower quadrant pain, which had subsided spontaneously. There was no history of allergy. Several members of her family had had emphysema. The patient is a heavy smoker.

Physical Examination. B.P. was 120/80, P. 100, R. 24, and T. 99°.

She appeared to be a well developed slightly pale white woman in no distress. She was alert and cooperative. The eyes, ears, nose and throat were not remarkable except for dental caries. The lungs were clear to ausculation and percussion. The heart had a sinus tachycardia, but no murmurs or enlargement were evident. Some nodularity was present in both breasts. The abdominal examination revealed a flat, soft, nontender abdominal wall. The liver, kidneys, and spleen were not palpable.

The pelvic examination showed a marital introitus with good support and the vagina appeared to be normal. The cervix revealed the previous biopsy sites, but otherwise appeared clean. The uterus was slightly enlarged and in an anterior position. There was a slight irregularity palpable in the right fundal area. Some thickening was present in both adnexal areas.

Laboratory Findings. The urinalysis was completely negative. The PCV was 41% and the Hgb. 12.3 Gm. WBC. count was 7,450. Qualitative VDRL was nonreactive.

Hospital Course. The patient was taken to surgery on March 29 with a preoperative diagnosis of menometrorrhagia not controlled by dilatation and curettage or hormonal therapy, and possible myoma.

On opening the abdomen it was noted that the uterus was slightly enlarged and softened with some discoloration present beneath the serosa which was thought to represent adenomyosis. The ovaries were quite small and the tubes were enlarged and appeared to represent a bilateral hydrosalpinx. A few fibrous adhesions were present between the ovary and tube on the right.

A total abdominal hysterectomy, right salpingo-oophorectomy, and left salpingectomy was then carried out. An incidental appendectomy was also performed. The operation was uneventful and no blood was given during the procedure.

The *pathologic report* of the specimen revealed a uterus with chronic cervicitis, proliferative endometrium, and adenomyosis. There was bilateral chronic salpingitis. The ovary contained an old lutein cyst. The appendix appeared normal.

She was permitted up on the first postoperative day and appeared to be progressing quite well.

On the morning of the 2nd postoperative day, while the patient was sitting up eating breakfast she suddenly developed severe right anterior chest pain, and became cyanotic, dyspneic, pale and began to sweat profusely. She was placed in bed in Fowler's position, and nasal oxygen begun. Her B.P. was 140/62, R. 32, and P. 136. She was given ⅛ gr. morphine sulphate I.M. and a portable chest film was obtained.

Physical examination at the time revealed a sinus tachycardia; there was dullness to percussion and decreased breath sounds in the left lower lung base.

The portable chest x-ray showed the heart and trachea displaced toward the left and an increased density of the lung in the left lower base. The right lung appeared overexpanded. Also it was noted on the chest film that the intercostal spaces on the left appeared to be closer or more narrow than the ones on the right. The x-ray diagnosis was left lower lobe atelectasis. (Fig. 1.)

A surgical consultation was obtained and bronchoscopy was carried out immediately. Several large plugs of thick mucoid material were removed from the left lower lobe bronchus and after irrigation with normal saline and alevaire the patient coughed up several thick tenacious

*From the Department of Obstetrics and Gynecology of the Nashville General Hospital, Nashville, Tennessee.

mucous plugs. She was placed on potassium iodide drops and given intermittent positive pressure breathing treatments with oxygen and alevaire for two days following the bronchoscopy. She was much more comfortable and breathed easier immediately after the bronchoscopy was completed. The repeat chest x-ray revealed the heart and trachea to be in normal position and the left base appeared clear. Another chest x-ray examination done two days later also was reported as normal. The dullness in the left base disappeared immediately after bronchoscopy and breath sounds were normal. (Figs. 2 and 3.)

Since our first impression was pulmonary embolus, we obtained other laboratory study which was reported as follows: bilirubin of less than 1.2 mg.%, SGOT of 26 units, sedimentation rate of 23 mm. hr., WBC. of 12,100, PCV. of 41% and Hgb. of 13.6 Gm.

The day following bronchoscopy the T. rose to 102° and the P. continued to range from 90 to 120. She had been placed on tetracycline on the 1st postoperative day and this drug was continued on the same dosage after the temperature elevation. The morning of the 4th postoperative day her temperature was normal and remained so until her discharge on the 8th postoperative day. The patient was feeling well at the time of discharge and the lung fields were clear to auscultation and percussion.

DR. EVERETT CLAYTON: Thromboembolism probably should be considered first because it is well recognized as a severe and often tragic complication during the postoperative period. A pulmonary embolism may be the first sign of phlebothrombosis or of congestive heart failure. All of these complications have been materially reduced by early ambulation.

Those who saw this patient at the time of the pulmonary accident strongly considered a diagnosis of pulmonary embolism. Another possibility was acute myocardial infarction. Often it is not possible to distinguish one from the other. When massive pulmonary embolism occurs, the patient is obviously critically ill. In a few instances large emboli have been removed by thoracotomy. This patient presented the clinical picture of a pulmonary embolus, except that it was too early in the postoperative period and there is usually severe hypotension. In this case the blood pressure was still 140/62 immediately after the accident. The blood findings did not support the diagnosis of an embolus.

DR. SWAN BURRUS: Varying degrees of atelectasis are common postoperative complications. Postoperative atelectasis results from obstruction of the tracheobronchial system. The usual causes are a defect in the expulsion of mucous and changes in the quality of the bronchial secretions. Pneumonia is apt to follow if the atelectasis persists. In massive atelectasis such as this the onset is sudden with a rapid pulse and fever. A chest x-ray is mandatory because it will show the shift of the trachea, mediastinum and heart to the affected side.

DR. WHITACRE: In this instance the alertness of Dr. Bohannon in obtaining an immediate view of the chest by portable x-ray was a decisive factor. This film (Fig. 1) shows the shift of the heart and the trachea to the left and the difference in the separation of the ribs on the left and right side respectively. The second x-ray (Fig. 2) was made less than two hours after bronchoscopy and, the third x-ray (Fig. 3) shows the relatively normal chest film two days later. The reports on all of these films are by Dr. Clifton Greer, Head of the Department of Radiology. After the diagnosis was established, the turning point in this case was the bronchoscopic examination by Dr. Benton Adkins of the Department of Surgery. This was carried out with the patient in her bed on the ward, and required less than fifteen minutes. Most of the mu-



FIG. 1. There is shift of the heart and trachea to the left. The left dome of the diaphragm is elevated. The ribs on the left appear separated by less intercostal space than on the right. There is a slight haze in the right base. *Impression:* Left lower lobe atelectasis.

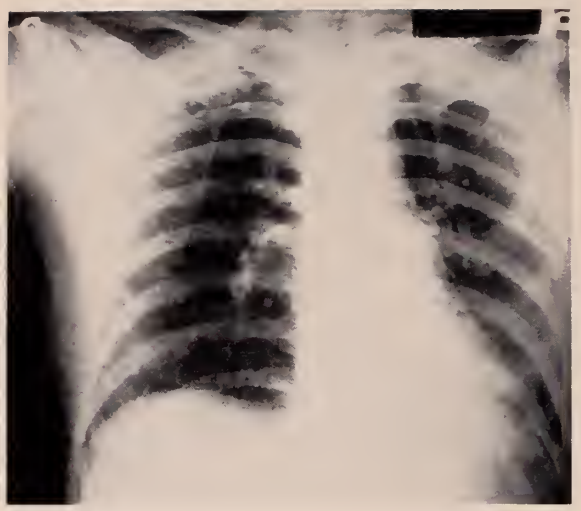


FIG. 2. The heart and trachea are in normal position. The left dome of the diaphragm is in normal position. The left base is clear. The intercostal spaces are not remarkable. There are scattered calcifications in the lung fields and in each hilus.



FIG. 3. The heart, diaphragm and trachea are not remarkable. There are a few scattered calcifications in each lung. There is no evidence of atelectasis.

cous was removed and the patient was able to cough up the remainder. She was discharged to go home in apparent good health on the eighth postoperative day.

This case is presented to illustrate the importance of alertness on the part of the resident staff when a pulmonary complication occurs.

AMA BALANCE SHEET

The American Medical Association's balance sheet at the end of 1962 showed this financial picture:

THIS IS WHAT THE AMA OWNS	
Cash	$ 600,973
Accounts and Notes Receivable	876,274
Inventories and Prepaid Expenses	691,316
Building and Equipment	4,489,752
Investment Portfolio	8,367,660
Total	$15,025,975
THIS IS WHAT AMA OWES TO OTHERS	
Accounts Payable	$ 967,623
Income Received but not yet earned	1,684,823
Total	$ 2,652,446
SO THIS IS WHAT AMA IS WORTH	$12,373,529
OF THIS AMOUNT, AMA HAS	
Set aside for replacement of building and equipment	$ 9,444,077
RESERVES to finance anticipated needs in the future	$ 2,929,452

(From AMA News—April 29, 1963.)

CLINICOPATHOLOGIC CONFERENCE

Kennedy Veterans Administration Hospital*

Polycythemia and Renal Cyst

John H. Kier, M.D. and J. M. Young, M.D.

Present Illness. This is the case of a 61 year old male farmer who was admitted to this hospital for the 6th time. His first admission occurred approximately 5 years prior to the present hospitalization. He was referred at that time for treatment of weakness and severe heat intolerance. His hemogram elsewhere showed RBC. count of 6.2 million, Hgb. 17 Gm. and PCV. of 55%. Fourteen phlebotomies had been done by his family physician in the 12 months before admission.

Studies here showed a plasma volume of 2,840 cc. by the Evans-blue dye method, PCV. of 50%, blood volume 5,680 cc., RBC. count of 4.3 million and Hgb. 11 Gm. Radioactive phosphorus was not used, and the patient was discharged after repair of an inguinal hernia.

The 2nd admission, several months later, was for elective gall bladder surgery. The specimen showed chronic cholecystitis and cholelithiasis. The hemogram was normal. The operation was complicated by a wound infection. The 3rd admission, 2 years later, was for repair of an incisional hernia of the abdominal wall and inguinal herniorrhaphy. Hemogram showed RBC. count of 6.6 million, Hgb. 17.7 Gm., and PCV. 58%. No phlebotomies were performed.

The 4th admission came after his family physician found polycythemia and the patient complained of weakness and shortness of breath. Studies here showed the Hgb. to range from 16.2 to 19.2 Gm., PCV. 49 to 57%, reticulocytes 2 to 4.9%, WBC. count 9000, RBC. count 6.3 million, and uric acid 10 mg.%. Serum iron was 1 mcg. per cc. and the iron binding capacity was 312 mcg. per 100 cc. Pulmonary function studies indicated a mild degree of obstructive ventilatory insufficiency. Arterial oxygen saturation, resting, was 88.7% and after 15 minutes of 40% oxygen was 97.1%. Three phlebotomies were performed and the patient was discharged with Hgb. of 14.9 Gm. and PCV. of 44%.

The present admission, 3 months later, was because of left flank pain and dysuria of 1 month's duration. The pain was dull and radiated to the left lower abdominal quadrant. On two occasions the patient thought he passed some gravel and dark material. He had urethral pain each time. All symptoms cleared after several days, and antibiotics were given. A K.U.B., taken in the Outpatient Clinic, showed a density in the region of the upper pole of the left kidney.

Physical Examination. He was well developed and nourished, was obese, not acutely ill, and was mentally clear. Vital signs were normal and B.P. was 150/100. A few faint inspiratory rales were present at the right base. Several operative scars were present over the abdomen. No cyanosis or clubbing of the fingers were seen. The abdomen was obese and not tender. He weighed 180 lbs. and was 67 inches tall.

Laboratory Data. WBC. count was 7800, with 58 neutrophils, 31 lymphocytes, 8 monocytes, 2 eosinophils and 1 basophil. Hgb. was 15.2 Gm., PCV. 53%, platelets 150,000 per cu. mm., serum uric acid 7.8 mg., and BUN. 20 mg. per 100 ml. Urinalysis was normal. Urine cytology showed no atypical cells. EKG. showed right bundle branch block, which had also been present on the previous admission. Chest x-ray showed a heart of normal size and increased markings present throughout both lung fields, unchanged since previous examination. K.U.B. showed a small calcific density over the superior portion of the left kidney shadow. I.V.P. showed a constant pressure defect on the middle left calyx and evidence of prostatic enlargement. A left retrograde pyelogram again showed the pressure defect on the left middle calyx. The patient remained asymptomatic with normal temperature, pulse and respiration. On the 18th hospital day an operation was performed and 13 hours later the patient developed sudden chest pain and expired.

Discussion

DR. JOHN H. KIER: The two possible points of departure here would be to discuss this either as a case of polycythemia or as a renal lesion. I think I will go into the renal aspect first. The x-ray defect of the left calyx, from the description, seems unlikely to have been caused by pressure from something entirely extrinsic to the kidney. Adrenal tumors, retroperitoneal sarcomas, etc., can compress the kidney. Usually this is more a displacement, and it would be unusual for such an extrinsic tumor to cause a circumscribed pressure defect on a single calyx. I think, therefore, we have to consider primarily lesions arising in the kidney itself. Lesions that might give such an x-ray picture are tumor, cysts of various types and cortical abscesses. Focal infections of the renal cortex are of two types, staphylococcal infection and infection with organisms other than the Staphylococcus, the second group usually being an ascending bacillary infection. This ascending variety can cause multiple abscesses that can coalesce and form a pressure defect on x-ray. However, this is secondary to suppurative

*From the Medical and Laboratory Services of the Veterans Administration Medical Teaching Group Hospital, Memphis, Tenn.

pyelitis, and in this case there was no suggestion of this on x-ray and no pus was present in the urine. A focal coccic infection of the renal cortex can also produce multiple abscesses. These can coalesce and cause pressure defects on the calyx. The urine may also be clear in this situation if the abscess has not ruptured into the pelvis. The clinical picture can vary from a very fulminating process to one that is more subacute or chronic. However, even in the chronic variety, there is usually intermittent fever, malaise, weight loss, and the anemia of chronic infection. He had, rather than anemia, a polycythemia, and had no white count elevation, or history of chills or fever. Also, no fever occurred in the eighteen day period of observation in the hospital, so I think cortical abscess could be fairly well ruled out. Conceivably, a tuberculous renal abscess might cause such an x-ray defect. At times such lesions may produce very few symptoms and may not have a primary source of infection apparent. Usually though, the initial lesion is just below the epithelium of the renal papillae, so that it rather early breaks through into the pelvis, producing an irregular moth-eaten appearance of the major and minor calyces.

May we now have a look at the x-rays?

DR. ETTMAN: There is an old film of the gallbladder showing the gallstones. There has been very little change in the appearance of the chest film over a period of four years. The heart is not enlarged, the markings which were described on the previous examination are again noted. There are no obvious infiltrations. The IVP film on the right side was within normal limits, and the film on the left side shows this constant pressure defect as described in the protocol. A retrograde film was done and shows the same defect in the same region. Also there is a small diverticulum of the bladder and changes consistent with a prostatic enlargement. There is a scout film KUB showing a small density in the region of the upper pole of the left kidney which is consistent with a small calculus.

DR. KIER: Cystic lesions could cause such an x-ray picture, and I would like to say a little about polycystic kidney disease first. These patients, of course, often have hypertension. This man initially had mild hypertension, 150/100, but for a man of his age and with only one determination this does not seem very impressive. Also, I would think that if this were polycystic kidney disease, for a single lesion to achieve this size it would be unusual not to see evidence of other cystic lesions in the right kidney or in other portions of the left kidney. Clinically, there is not too much to suggest polycystic kidney disease. Often these patients have renal insufficiency, albuminuria and palpable tumors, none of which he had, flank pain which he did have, and hematuria, which he may have had. That is, he was said to have passed some type of dark material, which could have possibly been clot. Usually the bleeding of polycystic kidney disease is a diffuse hematuria, but sometimes cases have been reported in which the clots were passed. I believe, because of the x-ray appearance, that this probably is unlikely to be polycystic kidney disease, though I cannot completely rule it out.

Simple renal cysts may be unilocular or multilocular. The unilocular cysts are usually discovered in middle age or later, and can be either serous or hemorrhagic. They usually do not communicate with the renal pelvis, so that the symptoms they produce are usually those of pressure, a sense of fullness, or actual pain in the flank. Hematuria is relatively rare in simple unilocular cysts and usually no renal insufficiency is produced. Calcification of the wall may occur, which we do not see here. These cysts tend to grow out from, rather than into the kidney, but nevertheless, there is some growth into the kidney, sufficient in degree to produce pressure defects of this variety. This could, then, be a pressure defect from a unilocular cyst. I cannot rule this out, but I think that it is less frequently a cause of symptoms than certain other lesions that I will mention later.

Multilocular simple renal cysts are said to be quite rare, but have the same signs and symptoms as unilocular cysts. Since the x-rays suggest only a single lesion and since this lesion is rare, I think I can eliminate multilocular cysts.

We seem to be left with a diagnosis of some type of renal tumor as the most likely diagnosis. I would like to mention first tu-

mors of the renal pelvis. These are mostly epithelial in origin and about 75% are papillary. Because of their location and friability bleeding is quite common and often enough to pass a clot. They may even pass pieces of tissue. Diagnosis is best made by x-ray. Although these tumors originate in the pelvis, they can invade the parenchyma and may, after invading it, cause a pressure defect of this type, but I would expect more radiologic evidence in the pelvis. I also think, in pelvic tumors as opposed to parenchymal tumors, that the cytology would more likely be positive. It was negative here. Finally, tumors of the renal pelvis are relatively rare in comparison with those of the parenchyma. So I think the pelvic origin of this tumor is less likely than the parenchyma.

Parenchymal tumors that are large enough to be detected clinically and produce symptoms are mostly malignant. The great majority of these arise from the renal epithelium and this is the variety I intend to discuss, but the diagnostic features that I will mention in connection with the renal epithelial tumors might also apply to certain other malignant connective tissue tumors such as sarcoma, fibrosacroma, leiomyosarcoma, and possibly hemangioma. Their incidence in comparison to the epithelial malignancy, however, is so low that I think they would be very unlikely.

The evidence that I have discussed up to this point seems to indicate that renal adenosarcoma or so-called hypernephroma is the most likely answer. Hematuria is the most common symptom in hypernephroma, being present in 48% in a recent series from Johns Hopkins. It is quite important because it is usually the earliest symptom and may be present before a mass is palpable or before pain is produced. However, the bleeding is intermittent and not finding it on urinalysis, as in this patient, does not rule out the diagnosis. The bleeding is usually not profuse, but occasionally a clot can be passed, and possibly this might have been the dark material that the patient thought he had passed. He also thought that he had passed gravel on two occasions. We see a calcific lesion that could be a stone and in this recent review of hypernephroma that I mentioned, 23% were reported as having a history of urolithiasis. Pain is the second most important symptom and is present in nearly all in the late stages and is the presenting symptom in about 20%. Urine cytology is less likely to be positive than in a pelvic tumor. From a diagnostic standpoint retrograde pyelography is the greatest aid in diagnosis. The most common x-ray findings are enlargement and distortion of the kidney shadow, compression or obliteration of one or more calyces, which we apparently have here in the middle calyx, filling defects in the pelvis if the tumor invades the pelvis and finally, in large tumors, displacement of the ureter.

I think that this patient fits clinically and radiologically the picture of hypernephroma, and at this point I want to discuss another factor that may be some further evidence of the diagnosis. The other feature in this man besides the renal lesion was the fact that he appeared to have some type of polycythemia. Most of you are aware, I am sure, of the increasing number of patients who are being reported with polycythemia and renal tumors of various types, especially hypernephromas.

Forsel, in 1946, first suggested that renal carcinoma might produce polycythemia. He had a patient with polycythemia whose blood count returned to normal after the hypernephroma was removed. About 14 months later, the patient developed polycythemia again and on re-exploring him, he found that there was a recurrence of the hypernephroma in the remaining kidney. Since that time there have been over 50 such reported cases, and in numerous instances removing the tumor allowed the blood values to return to normal.

Three large series of hypernephromas from different parts of the country have shown polycythemia to be present in one group in 2.6%, in another in 3%, and in another 4% of hypernephromas. Less frequently, other renal lesions have been associated with polycythemia and many of these have, upon being removed, caused remission of the polycythemia. These include at least 6 cases of hydronephrosis, 6 of polycystic kidney disease, and 5 of simple renal cyst. The type of polycythemia that occurs in association with renal tumor is apparently not polycythemia vera. These patients do

not usually have an enlarged spleen and the white count and platelet count are not elevated. The blood volume studies have been somewhat scanty until recently, and generally they seem to indicate an increased red cell mass, but this is not entirely consistent. This, in other words, resembles an anoxic secondary type of polycythemia, but most of the studies show no arterial unsaturation. There was a suggestion of course, from all this, particularly from the fact that the polycythemia regressed when the tumor was removed and came back again when the tumor recurred, that these tumors might be producing a substance that stimulated erythropoiesis. This was one of the things that renewed interest in the neglected idea that had been postulated in 1906 by Carnot and DeFlandre, who felt that there might be a humoral factor in erythropoiesis and they presented some scanty experimental evidence, but this idea was dropped for a long time.

In 1950, Reismann, using parabiotic rats, showed that if one rat was kept hypoxic in 10% oxygen and the other rat was breathing normal oxygen, the bone marrow was stimulated in both animals. This tended to refute the old idea that bone marrow production of erythropoiesis was regulated by the oxygen content of the bone marrow. It appeared that the rat who was in a normal oxygen environment was receiving something through the blood supply of the hypoxic rat which stimulated his bone marrow, suggesting a humoral factor. Subsequent further studies showed that if you reduce the oxygen tension in the bone marrow alone, you do not stimulate erythropoiesis. Finally, a plasma factor was identified that could be injected and produce erythropoiesis. This, of course, is erythropoietin and now has been at least partially chemically determined and is a glycoprotein. This erythropoietin is increased in the plasma of animals who have been bled or who have been made anoxic and is present in many types of anemia. To try to find where it arose, Jacobson removed organs one by one from animals. He could remove the liver, stomach, or numerous other organs, then stimulate erythropoiesis by bleeding these animals or making them hypoxic and they still would respond by putting out erythropoietin. However, when he removed the kidneys there was no response, and he thought that therefore the kidney was the site of origin of erythropoietin. Extracts of all the organs of the body have been done and no erythropoietic activity has been found, except inconsistently and only by some observers, in kidney extracts. Some people think that erythropoietin arises from the renal tubular cells and that these cells normally exist in a slightly hypoxic environment. Further drops in arterial oxygen saturation, it is postulated, stimulates the tubular cells to elaborate erythropoietin, which then in turn stimulates bone marrow.

How does this apply to the patients I have mentioned with polycythemia and renal lesions? Recently some cases have been reported where the plasma erythropoietin has been found elevated in patients with hypernephroma, extracts of hypernephromas have been found high in erythropoietin, and cystic fluid from polycystic kidneys has been reported to have increased erythropoietic activity. There was some debate as to whether the increased erythropoietin in these cases arose actually from the tumor itself or from the compressed normal renal tissue adjacent to the tumor, and it was hard to tell because in most of these cases the entire kidney plus the tumor were removed. Quite recently, though, there were two cases reported of simple renal cysts, associated with polycythemia. Erythropoietin level was increased in the cystic fluid but also, in the cyst wall itself, which was composed of cuboidal epithelium resembling tubular epithelium, they found quite increased amounts of erythropoietin. In addition, in these two cases, the kidneys were left in, only the cysts were removed, and the polycythemia regressed, which would seem to indicate that at least in these cases the erythropoietin excess was being produced by the tumor and not by the adjacent renal tissue.

If the kidney tubule really is the site of normal production of erythropoietin, then the theory proposed in these situations where there is an abnormal increase is that it comes from the tubular cell, either as the primary cell of origin which has become metaplastic and may be putting out more erythropoietin, or possibly from the fact

that the tumor may be less vascular than normal and thus its tubular cells may be in a relatively hypoxic environment.

There is some evidence recently of polycythemia with hepatoma and even more definitely is there evidence of cerebellar hemangioblastoma being associated with polycythemia, forty such cases having been reported. In 21 of these cases removing the tumor cured the polycythemia, and increased erythropoietic activity has been found in the cystic fluid of a few of these tumors, though it is uncertain whether this is the same erythropoietin found in renal lesions.

Now, after this digression I would like to get back to our patient. Here I am somewhat confused. The important thing to determine is what type of polycythemia he had, and I am not sure that we have enough evidence to know for certain. The two main types of polycythemia are relative and absolute. The relative polycythemia, of course, is not a polycythemia at all but a reduced plasma volume with a normal blood volume. This may be acute as in dehydration and burns, or chronic in the situation of stress erythrocytosis. The other major type, absolute polycythemia, with elevation of the red blood cell volume, may be either polycythemia vera or secondary polycythemia, usually secondary to anoxia.

First, did this patient have relative or absolute polycythemia? His red cell volume of 34.6 ml/kg. was about normal and his plasma volume of 34.6 ml/kg. was slightly decreased. This would suggest a stress erythrocytosis, but I am sure that it is apparent to everyone who has looked at the protocol that the figures for plasma and blood volume were obtained five years before his death, and the only weight we are given was that of 180 lbs. on his last admission. So these figures are really not valid, since we do not know what the man weighed at the time the blood volume studies were done. However, even if we felt the figures were accurate this still could be consistent with absolute polycythemia, because this man had had 14 phlebotomies in the 12 months before he came in. He may have had a phlebotomy shortly before arriving here and actually, at the time these blood volume studies were done, was really not significantly polycythemic. In patients who are treated for polycythemia the total red cell volume will fall, but there are several different patterns. Usually the plasma volume falls parallel to the red cell volume, but this does not always occur. In some cases the plasma volume drops more and in other cases there may be an increase in plasma volume as the red cell volume falls. So I think that we cannot entirely be sure in this man. Usually, in order to produce such a significant degree of apparent polycythemia in stress erythrocytosis, there is a considerable drop in plasma volume. Here it was only slight. This patient also had reticulocytosis. He had in addition uric acid levels that were elevated as they may be in absolute polycythemia and these factors make me think it was an absolute type.

If it were absolute polycythemia it probably was not polycythemia vera. He had no splenomegaly, no white count elevation and no platelet elevation. Could it be secondary to anoxia? He did have some slight arterial unsaturation. Perhaps there was some shunting present too, since he did not completely bring his saturation up to 100% with oxygen, but I do not think a shunt of this degree would cause very much polycythemia. Also, at the time his arterial oxygen saturation studies were done he had pulmonary studies that indicated only a mild degree of obstructive ventilatory insufficiency, and there was no mention of dyspnea, yet he was polycythemic at that time.

In conclusion, I think that his polycythemia is probably associated with the renal lesion, which I believe was most likely a hypernephroma. Even if there were not the factor of polycythemia I think, from the x-ray appearance and clinical course, that I would probably diagnose hypernephroma anyway. The presence of the polycythemia may be some additional supportive evidence. The immediate cause of his death, with sudden chest pain and rapid demise, certainly suggests either myocardial infarction or pulmonary embolus. He had a right bundle branch block which suggests he may have had coronary arteriosclerosis, but this type of death, in a postoperative period and in a patient of this age would more likely be from a pulmonary embolus.

Clinical Diagnoses

1. Hypernephroma with polycythemia.
2. Pulmonary embolism.

DR. J. M. YOUNG: Thank you, Dr. Kier, for that very interesting and complete discussion of polycythemia. Are there any comments from the floor?

DR. ETTMAN: I would like to know why Dr. Kier, from the x-ray thought this a hypernephroma and not a benign cyst?

DR. KIER: I said that I could not really rule out cyst but that I was going somewhat on statistics in preferring hypernephroma.

DR. YOUNG: I think that you are probably right from standpoint of a cyst not causing clinical symptomatology. Certainly we see cysts of the kidneys very frequently. These are usually small. Some, however, measure 10 or 12 cm. in diameter and are not recognized clinically. I do not mean we find polycystic disease, but simple cysts are quite common.

DR. LUTON: The findings are very much suggestive of a benign lesion. The calyx, superior and middle calyces are displaced, and I would imagine if this were malignant one would probably get marked encroachment or even the calyx eaten away.

DR. YOUNG: It is certainly a very rounded deformity isn't it? Can you tell about the size and the external surface shape of the kidney?

DR. ETTMAN: I have looked at some of the old films and as far as I can tell the kidneys are not enlarged or deformed.

DR. YOUNG: What do you think about the right kidney? Does it appear to have a normal outline and size?

DR. ETTMAN: I think that both kidneys are symmetrical as far as size is concerned. I have tried to evaluate all of the calyces, and as far as I can tell they are within normal limits. I see some calcification which corresponds with the splenic shadow.

DR. YOUNG: In other words you are thinking in terms of the calcification you have mentioned at the upper pole of the left kidney as maybe being calcification of an old hemorrhagic area of the tumor, or something like that or splenic calcifications.

DR. LEFKOVITS: I am intrigued by this shadow in the kidney pelvis; it resembles punched out areas which are seen in gout, and I am wondering whether or not this man did have gout. Dr. Kier said he did have gravel in his urine and his serum uric acid was elevated. The possibility that this patient had a large urate tophus deposited in the calyx should be considered. When such masses of tophi are deposited one usually sees irregular calcifications in such areas.

DR. ETTMAN: I do not see calcifications on the x-ray film in this region, and I have not seen such large deposits of urates in the kidney pelves of our gouty patients. I believe, therefore, as Dr. Kier does, that this man had a mass in the region of the kidney rather than a gouty tophus.

DR. BURKETT: I might be able to add a few more facts about this case which may prove to be even more confusing. First, the patient was definitely established to have an absolute polycythemia by Chromium 51 blood volume determination on a later admission. Secondly, another radioisotope procedure, which we were trying at the time, suggested polycythemia, secondary to hypoxia. This procedure consisted of determination of radioactive iron plasma disappearance time before and after receiving oxygen therapy for a 24 hour period. The plasma iron disappearance time is a rough index of the rate of erythropoiesis, and in this patient was considerably less after oxygen therapy suggesting that the polycythemia was secondary to hypoxia, even though the patient did not appear to have very severe pulmonary insufficiency clinically.

Anatomic Findings

DR. YOUNG: If you think I am going to clear up all of your problems, you're wrong. At the time the autopsy was done, it became quite apparent that this was still a complicated case. External examination disclosed the recent surgical incision and the older surgical incisions on the abdomen. Both lungs were relatively heavy, the left weighing 420 grams and the right 700 grams. This was mainly on the basis of pulmonary edema. Microscopic examination of the lungs disclosed only the edema and minimal interstitial fibrosis. The heart weighed 400 grams. There was marked coronary atherosclerosis present. No evidence of recent occlusion was found. There was an area of

scarring in the left ventricle. Mainly, this represented old scarring, but often times in regions of old scarring in the myocardium anoxic states may cause death of nearby cells. Around the areas of scarring there had been fairly recent extension of a more acute process. When we explored the region of the surgical incision we observed that the capsule of the kidney had been stripped at the time of the operation. The kidney had not been removed, and there was a retroperitoneal hematoma and a moderate amount of intraperitoneal hemorrhage. This could have dropped the patient's blood pressure. Since his coronary circulation was already compromised, this possibly led to further necrosis of the myocardium in the areas around the old scarring. This possibly led to a cardiac arrhythmia of some type that caused his sudden death.

The spleen, despite the fact that it was not felt clinically, weighed 690 grams, which, of course, is about 4 times normal weight. There was erythroid metaplasia occurring in the spleen. In the sinusoids were groups of early red cells. The liver was moderately enlarged, weighing 2050 grams. A minimal fatty metamorphosis was present in the liver. We saw a few nests of red cells in the sinusoids of the liver.

At the time the surgical exploration was carried out a cyst was found at the upper pole of the left kidney. This was unroofed, some lining material was removed for study and the cyst marsupialized. There were only a few areas of the cyst wall lined by a cuboidal epithelium. No analysis was made on the fluid which was described as clear. There were several other smaller cysts present in this kidney. At the time of autopsy the left kidney weighed 160 grams which is a normal weight. In the rest of the kidney we found little else wrong except for a minimal pyelonephritis and some calcareous deposit in the superior calyx which would certainly go along with his passing gravel through his urethra. The right kidney, interestingly enough, also had cysts in it, one of which measured about 10 cm. in diameter and actually the weight of the kidney with these cysts was 700 grams.

The only other finding of significance was in the bone marrow which revealed erythroid hyperplasia. There were great numbers of megakaryocytes present. There was also some increase in the white cell series. We thought that we were probably dealing with a case of polycythemia vera at first. But since that time there has been, as Dr. Kier pointed out, a great deal of literature concerning polycythemia and the evaluation of it. Our case probably has an absolute polycythemia. He certainly, during his life, revealed no evidence that this was a polycythemia vera in the sense that he had any leukocytosis, or platelet increase, or large spleen. Yet at the time the autopsy was performed the spleen was large. It showed extramedullary hematopoiesis. The appearance of the bone marrow itself is somewhat confusing.

In going over some of the reported cases in which polycythemia was found with renal tumors, both malignant and benign, there were some instances where the patients had a large spleen. So I do not think that we can use a large spleen as a means of reaching a diagnosis. As Dr Kier pointed out, both in polycystic disease and hydronephrosis, and also more recently in simple cysts of the kidneys, polycythemia has been reported. As you know it has also been reported in carcinoma of the liver and, as Dr. Kier mentioned, in infratentorial tumors, some of which may be matastatic hypernephroma. We have also seen polycythemia in a case of carcinoma of the cecum. I may also mention that cases with uterine fibroids have also been known to show polycythemia.

In summary, I think this is a very interesting case of polycythemia which we originally classified as polycythemia vera. However, since the literature seems to be unfolding in such an unusual manner, I am not certain that this diagnosis is correct. We are keeping an open mind on this whole problem. How do you feel about such a case as this now, Dr. Kier? Would you feel that the renal cysts possibly have a role here?

DR. KIER: Judging by the reports in the recent literature I would think it fairly likely.

DR. BURKETT: We thought it polycythe-

mia vera. He did have a big spleen and most of them are in that category. If this patient had survived it would have been very interesting to know if his red count had reduced, particularly since he had a cyst of the other kidney.

Final Anatomic Diagnoses

1. Polycythemia, type undetermined.
2. Renal cysts.
3. Coronary arteriosclerosis, severe, with old myocardial infarction and recent extension.

Age and Menstrual Status as Prognostic Factors in Carcinoma of Breast—G. Kleinfeld, C. D. Haagensen, and E. Cooley

Ann Surg **157**:600 (April) 1963

A personal series of 566 radical mastectomies was studied. The preoperative extent of disease was classified according to the Columbia Clinical Classification (Haagensen and Cooley). In this series of cases, mammary carcinoma in premenopausal women, particularly those younger than 35 years, carried a poorer prognosis than carcinoma in postmenopausal women. In women under 35 the clinical extent of disease may be deceptively favorable. In these younger women, despite clinically early disease, the axilla may be extensively permeated by carcinoma, and the 5 yr survival rate is surprisingly poor. *(From JAMA.)*

President's Page



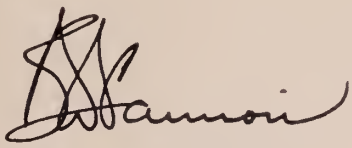
DR. CANNON

Those of you who read this page during the coming year will find frequent deviations from the usual trend. Perhaps some of the material printed on this page may serve as a stimulus in directing our thoughts to values other than those limited to the immediate pressures on a physician attempting to be public relations consultant, lay group adviser, insurance expert, medico-legal mentor and participant in medical organizations and even politics. Discussions of true human values, so frequently crowded out in our busy curriculums, can be, at times, a needed adjunct to a fuller understanding of our purpose. There was a time when a poet might have written such a phrase as "a doctor is a doctor is a doctor." Perhaps nowadays a more appropriate designation would be "a doctor is a specialist is a super-specialist." This course of thought was that expressed in a recent address by Dr. Hugh Hussey, former Chairman of the Board of Trustees of the AMA.

In a recent address before the Congress on Medical Education, I made a plea to medical educators to accept the challenge of fulfilling all demands of medical service in this training program. I further suggested that there is merit in swinging the pendulum once again to a broader educational scope, emphasizing the "art" in medicine so that a balance might be obtained in the oscillating emphasis between "art" and "science" in medicine. The April 13 issue of JAMA carried an editorial entitled "The 'Art' and 'Science' in Medicine." After you have read this editorial, I would direct your thoughts to a quote from M. J. Sirks, translated as follows: "Man will be forced to recognize that the rays of light reflected by his self-portrait form a rich and varied spectrum comprising the whole color scale from the cold violet rays to the warmest red. . . . At the cold violet end we find intelligence, in the warmer colors, temperament and character: self-control, responsibility, energy, and emotion. We approach the invisible realm of infrared, the rays of heat: altruism, love of one's neighbor, self-denial, the superior gifts which are available to man. This is where the human being must form his own vision; this is where his faith will dominate his understanding. This is where the biologist, as a scholar, recognizes that he cannot speak. Words yield to silence."

If the good physician self-portrait of today would be as Sirks has painted, then surely that physician would display the quality of empathy. To attain this height a physician must couple experience with flexibility, which allows compassion and intellectualism to congeal in the analysis and understanding of the whole patient. Perhaps this degree of compassion is incompatible with pure intellectualism but this accomplishment, I feel, would manifest the combination of "art and science" in a physician's performance.

My congratulations to the physicians of Tennessee in selecting Dr. Rudie Kampmeier as their next leader, for he has displayed, through his efforts in education, teaching and practice, the qualities of a truly good physician and able leader.



President

THE JOURNAL
OF THE
TENNESSEE MEDICAL ASSOCIATION

Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor, 8210 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK AND POST GRADUATE EDUCATION

R. H. KAMPMEIER, M.D., Chairman
W. POWELL HUTCHERSON, M.D., Chattanooga
ROBERT P. McBURNEY, M.D., Memphis
EUGENE J. SPIOTTA, M.D., Memphis
(Specialty Society Representatives to be named)

MAY, 1963

EDITORIAL

TRICHINOSIS

The diagnosis of trichinosis is common in Europe and North America and uncommon in other parts of the world. In the United States, where the incidence is between 15 and 20%, there is "more than three times as much trichinosis as is known in all of the rest of the world put together."[1] The ratio of asymptomatic to symptomatic cases is high.

Infection is contracted following the ingestion of meat containing the encysted larvae of *Trichinella spiralis*. There are no intermediate hosts, both the adult and larval stages developing in the same host. Infection has been produced or observed in numerous animal species, including bear, wild boar, horse, cow, dog, cat, rabbit, guinea pig, and mouse in addition to the rat and pig. Man is particularly susceptible; most fowl are resistant. In pigs, infection is contracted by feeding of uncooked pork scraps, less often by eating infected rats. Rats also feed on uncooked pork scraps and, in addition, maintain a high incidence of infection by their cannibalism.

The practice of feeding uncooked garbage to hogs perpetuates trichinosis as an important parasitic disease of man. Canadian law requires the cooking of garbage as a measure of protection against hog cholera, and in England cooking regulations are in force as a means of preventing foot and mouth disease.[2] By comparison, few of the states have laws requiring cooking of garbage before its consumption by swine and in these states enforcing such legislation can be difficult. Responsibility for control of this disease, therefore, rests with the consumer. Larvae can be killed by heating all portions of the meat to 55° C. or by freezing the meat to a temperature of —18° C. for 24 hours.

During the past two years there have been 9 patients with trichinosis, 2 of whom died, reported to the Davidson County Health Department. No part of the state has been free of this disease. One patient had eaten poorly cooked pork and 6 of the remaining 8 patients had eaten bacon wrapped around fillets. All had noted that bacon was poorly cooked when the fillet was rare or medium. Since wrapping bacon about fillets is becoming increasingly popular, the possibility of poorly cooked bacon as a source for trichinosis in man must be considered. No Trichinella were looked for in the bacon eaten by this group of patients but Dr. Robert H. Hutcheson, Jr. in his epidemiological report[3] on this outbreak suggests that poorly cooked bacon may have been responsible for the disease.

References implicating bacon as a source of Trichinella are rare because raw bacon is considered unpalatable by most Americans. That such infection can occur is indicated by the report of Davis and Cleland[4] who studied an epidemic of trichinosis which occurred at Camp Atterbury in 1945 among German prisoners of war. These men preferred eating canned bacon raw both at the table and in sandwiches. From this group 103 patients were hospitalized with trichinosis and many others were assumed to have had subclinical infections.

The possibility that poorly cooked bacon wrapped about fillets may serve as a source of Trichinella must be kept in mind. Until uniform and easily enforced laws are enacted requiring cooked garbage for the feeding of swine, other local measures for control must be emphasized. Restaurants serving pork products should be required to cook all pork products to a temperature of 55 C. and should be required to keep bacon used for wrapping fillets at —18 C. for at least 24 hours. These measures would insure destruction of Trichinella larvae.

Trichinosis must be eliminated and the means for accomplishing this are available. Freezing bacon prior to using it on fillets may be more important than previously recognized.

A. B. S.

References

1. Harrison, T. R., et al.: Principles of Internal Medicine. New York, McGraw-Hill Book Co., Vol. II, 1126, 1958.

2. Wright, W. H.: Public Health Problems Concerned in the Disposal of Garbage by Feeding It to Swine, Amer. J. Public Health 33:208, 1943.

3. Letter to John J. Lentz from Robert H. Hutcheson, Jr., Feb. 11, 1963.

4. Davis, W. A. and Cleland, R. R.: Trichinosis in Prisoners of War, U.S. Army Med. Dept. Bull., 7:973, 1947.

★

WHAT'S IN A NAME?

Usually not much! Often what is more important is what is back of the name.

By action of the House of Delegates and an alteration in the Constitution, the name *Tennessee State Medical Association,* has been changed to the *Tennessee Medical Association.*

In calling attention to the new name it seemed of interest to review the events that led to adoption of the name just discarded. In reading Hamer's **The Centennial History of The Tennessee State Medical Association* (1930), I became so engrossed in the early days of the *Association* that it was hard to put it down. It has been quoted freely in this editorial.

It was just 133 years ago, on May 3, 1830, that 47 Tennessee doctors met in Nashville (having a population of 5,500 persons), to organize the *Medical Society of Tennessee,* a name to be carried until 1902. This was a half century after James Robertson led his band of pioneers into Middle Tennessee. His son, Dr. Felix Robertson, the first male child born in Nashville, was one of the group active in organizing the new society.

The *Society* was incorporated by a bill passed by the State Legislature in the fall of 1829, becoming law, January 9, 1830 under the title, "An Act to Incorporate a Medical Society in the State of Tennessee." In addition to the usual provisions permitting election of officers and other corporate powers, was the provision of a board of censors to examine candidates and issue licenses to practice medicine and surgery in Tennessee. For some years, Tennessee doctors had been worried by the hundreds of quacks, who greatly outnumbered doctors who had either attended medical schools or who had completed satisfactorily preceptorships, and had attempted, even as early as 1817, to have the legislature do something about this, but unsuccessfully. However, the act of incorporation of the *Medical Society of Tennessee* and permitting a board of censors to examine and issue licenses to practice medicine, had one "fatal omission" as put by Hamer—it did not *require* a license from the board of censors to practice in Tennessee. In succeeding years the *Society* attempted time and again to correct this omission but was always refused by the legislature, and it was only in 1889 that licenses became a requirement to practice medicine in the State.

Thus, in 1830, was born the organization which was to meet annually, except for four years during the Civil War, to the present. In a legislative resolution accompanying the Act of incorporation were named the 151 physicians to be charter members—45 from East Tennessee, 79 from Middle Tennessee and 27 from West Tennessee. In the 31 years before the Civil War, the Society was essentially one of Middle Tennessee, always meeting either in Nashville or Murfreesboro. The meetings were small, and few rode a hundred miles on horseback to attend, as some did, however. Since the license to practice issued by

*Hamer, Philip M. (Editor): The Centennial History of the Tennessee State Medical Association, 1830-1930.—Printed for the Tennessee State Medical Association, 1930.

the Society's board of censors did not have legal standing, but was somewhat akin to the present certifying boards, only a few presented themselves annually for examination and paid the necessary ten dollars for the honor. Of interest is the fact that in 1839, the *Society* accepted the responsibility of distributing smallpox vaccine.

In addition to its unsuccessful attempts to gain legal status for its license, the *Medical Society of Tennessee* had other brushes with the legislature. In 1832, the Society attempted to secure repeal of a law passed in 1831, which made it a felony to open a grave and carry away a dead body. A committee of physicians pointed out that civilized governments were relaxing laws against dissection, and that Tennessee stood "alone in foisting on this point prejudices of superstition" and thus "became the object of unsparing censure and ridicule." The doctors' pleas in the name of medical education were not sufficiently eloquent to obtain repeal. Twenty years passed, 1854, before dissection was made legal, and grave-robbing became a misdemeanor and not a crime under specified circumstances. In that same year the president of the *Society* had admitted that physicians "go in the darkness of the night, risking fine and imprisonment, and steal" subjects for dissection. To the people of Tennessee he declared on this issue, that "Duty to ourselves—duty to our profession —duty to you and your families and duty to God requires it."

In May 1847, the American Medical Association was born, and the President of the Tennessee Society, Dr. A. H. Buchanan attended its meeting in Philadelphia. He brought back recommendations of requirements for the M.D. degree which were adopted by the Society in October of that year. The delegates to the 1851 A.M.A. meeting were instructed to persuade the national group to plead with Congress for a national board of health to protect the public against "patent and secret nostrums." (This was the year the Medical Department of the University of Nashville opened, soon to become the third largest medical school, after Jefferson Medical College and the University of Pennsylvania.)

In 1853, a committee of the Society reported on the adulteration of drugs. It memorialized the legislature to pass a law making it mandatory to publish formulas "of quack medicine and secret nostrums"—again unsuccessfully. Also, unsuccessfully, it asked for a law requiring registration of births, marriages and deaths. In 1856, a bill to create a board of medical examiners was defeated by a legislator who, having the interests of homeopaths and hydropaths at heart, thundered, "Pass this bill, and we shall have the lancet and calomel, world without end." It was defeated!

In 1866, after the War, a new constitution reorganized the Society to become a component of the A.M.A. In 1867, the legislature again refused a suggestion for securing vital statistics, and again in 1869 it refused a law banning the sale of secret medical compounds or nostrums. In 1874, the Society proposed a state board of health "to take cognizance of all methods of preserving the public health and preventing the incursions and spread of epidemics." The law drawn up by a committee of the Society was defeated, and the chairman, Dr. Wight, of Chattanooga, mourned that the terms " 'sanitary' and 'hygiene' are quite confounding for most members of such a Legislature. . . . The bill ought to have been more persistently lobbied." Two years later, with crippling amendments, it was passed but without any appropriation. A yellow fever epidemic in Memphis, in 1878, prompted activation of the State Board of Health. Now when, in 1881, the Board of Health had passed a law to register births, marriages, and deaths, sponsored by the Society in 1853, many doctors fought it, and it was repealed, though the Society tried again and again to have it passed thereafter.

At its annual session in 1878, the *Medical Society of Tennessee* gave its blessing to the formation of the American Association of Medical Colleges. In 1889, after repeated attempts, the *Society* was successful in having passed a medical licensure act, though not to the complete satisfaction of the profession—there were some who fought "outside" control of medical practice. It required another decade of effort to amend this Act to require examination for licensure. One reason for this desired amendment was an attempt to control the many "diploma mills" whose certificate of gradu-

ation did not vouch for knowledge or for competency. The passage of the amendment added to the accumulating information of failure rates in state board examinations, which was to lead the A.M.A.'s Council on Medical Education, under the Chairmanship of Dr. Arthur D. Bevan and Secretaryship of Dr. Nathan P. Colwell, backed by Dr. George H. Simmons, editor of the J.A.M.A., to set standards for medical education in 1905. The Council began its inspections of schools in 1906. With its data in hand it approached the Carnegie Foundation, in 1908, for help in the study which began in 1909 and led to the Flexner Report in 1910. This Act requiring examination for licensure, and the establishment of the State Board of Health in 1877 were the two outstanding legislative contributions to the people of Tennessee in the first 60 years of the *Society*.

In 1902, a new Constitution and By-laws, and reorganization of the *Medical Society of Tennessee* to represent a federation of county medical societies, gave a new name, the *Tennessee State Medical Association*. This is the name that was changed in 1963. And it was research upon the origin of the name TSMA that ended in a review of some of our heritage. Since 1902, the *Association* has continued to sponsor legislation for Tennessee's good—upon occasion setting a pattern for other states. These laws have often been rocognized on this page and need no review. Not once in its 133 years has the doctor's association sponsored laws with a selfish interest.

R. H. K.

DEATHS

Dr. George Tivis Graves, Jr., 57, Nashville, died March 22nd at St. Thomas Hospital.

Dr. Andrew N. Hollabaugh, 60, Nashville, died April 7th at his home.

Dr. Cyrus Nathan Keatts, 86, Indian Mound, died March 30th in Clarksville Memorial Hospital.

Dr. Herman Renner, 76, Chattanooga, died April 7th at his home.

Dr. Horst A. Schneider, 65, Chattanooga, died March 19th at a local hospital. He was chief medical officer at the Tennessee Tuberculosis Hospital.

Dr. W. J. Sugg, 91, Dickson, died March 19th at his home.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Memphis-Shelby County Medical Society

The Memphis and Shelby County Medical Society met in regular session in the auditorium of the Institute of Pathology on April 2nd. The scientific meeting was sponsored by the American Cancer Society, Memphis Chapter.

The subject, "Functioning Neoplasms and Hyperplasias of Multiple Endocrine and Glands," was presented by Dr. Robert C. Horn, Jr., chairman of the Department of Laboratories, Henry Ford Hospital, Detroit.

The meeting of the Society's House of Delegates was held at 8:00 p.m.

Washington-Carter-Unicoi County Society

A panel discussion on mental retardation was presented April 4th at the meeting of the Washington-Carter-Unicoi County Medical Society at the Johnson City Country Club.

Panelists were: Dr. H. B. Dearman, psychiatrist; Dr. Kenneth Roark, pediatrician; Mr. Robert Owens, psychiatric social worker; and Mrs. R. E. Cardwell, graduate assistant in speech and hearing at the East Tennessee State University.

Stress was placed on the fact that the mentally retarded child can be helped by early diagnosis. Doctors were given lists of available facilities in Tennessee and in the immediate area.

Roane-Anderson County Medical Society

The Society's regular monthly meeting was held on April 25th in the Oak Ridge Hospital, following a dinner. The program consisted of a paper, "Medical Education—Yesterday, Today and Tomorrow," presented by Dr. Stafford L. Warren, Vice-Chancellor, Health Service, University of California.

The guest speaker was inaugurated by the President of the United States on May 1st as Chief of Mental Health for the United States.

Nashville Academy of Medicine and Davidson County Medical Society

The Academy of Medicine held its quar-

terly combined meeting with hospital staffs on May 14th at the Hermitage Hotel in Nashville. An academy business session followed dinner. The scientific program was as follows:

"The Graft vs. Host Reaction," by Dr. Robert S. Schwarts, Research Associate Blood Research Laboratory, New England Center Hospital, and Assistant Professor of Medicine, Tufts University School of Medicine, Boston. Dr. Schwarts' participation in this program was supported by a grant from The Merck Sharp & Dohme Postgraduate Program.

"The Results of Oophorectomy and Adrenalectomy in Metastatic Carcinoma of the Breast" was presented by Dr. John Van Prohaska, Professor of Surgery, University of Chicago; President, Chicago Surgical Association.

"Bleeding in the Third Trimester" was the subject presented by Dr. Stewart A. Fish, Assistant Professor, Department of Obstetrics and Gynecology, University of Arkansas School of Medicine, Little Rock.

Knoxville Academy of Medicine

The Society's monthly meeting was held on April 16th at the University of Tennessee Memorial Research Center and Hospital auditorium. The program was presented by the Reverend Doctor Paul B. McCleave who discussed the place of the clergy in patient care. He also reviewed some of the activities of the Department of Medicine and Religion of the American Medical Association. Dr. McCleave is Director of the Department of Medicine and Religion of the AMA in Chicago.

NATIONAL NEWS

The Month in Washington

(From the Washington Office, AMA)

A presidential advisory commission urged a massive attack by the federal government on illicit traffic in narcotics and dangerous drugs.

The commission recommended establishment of a special unit of investigators and lawyers in the Department of Justice to hunt down and prosecute big-time smugglers and sellers.

For the addict, the commission suggests more emphasis on rehabilitation rather than punishment. The commission said penalties in federal narcotics laws are too rigid for some of the lesser offenses and urged that these be relaxed to give courts more discretion in dealing with these offenders.

In an interim report, the commission also touched on the controversial question of whether drugs should be dispensed to addicts in treatment by physicians. It recommended that the American Medical Association and the National Research Council "submit definitive statements as to what constitutes legitimate medical treatment of an addict, both in and out of institutions."

The commission said it intends to make an intensive study of the issue of discipline versus rehabilitation in the treatment of drug abusers. It said it considered a combination of the two approaches best.

Other major recommendations included:

Stricter control of the manufacture and use of the so-called "dangerous drugs," such as barbiturates and amphetamines.

A comprehensive research program into all phases of drug abuse.

Establishment of a joint United States—Mexican commission to control the illicit traffic of narcotics and drugs from Mexico into the United States.

On the same day, the New York Academy of Medicine issued a report sharply attacking what it called the Federal Bureau of Narcotics' "punitive attitude" of treating drug addicts as criminals and attempting to control addiction by imposing stiff legal penalties.

The report of the New York physicians charged the Bureau of Narcotics with forcing "unsound" medical treatment of drug addicts, intimidating doctors who attempt to treat addicts and generally holding back "progress in the conquest of addiction."

★

The Department of Health, Education and Welfare licensed the manufacture of both a live-virus and a killed virus measles vaccines.

Merck Sharp and Dohme of Philadelphia was licensed to market a live-virus measles vaccine and Charles Pfizer & Co. of New

York City was licensed to market a dead-virus vaccine in what health officials foresaw as the weapons for possible victory in the age-old battle against the persistent and often serious ailment.

Merck Sharp and Dohme made available a limited quantity of the live-virus vaccine throughout the United States within two days of the licensing on March 21.

Surgeon General Luther L. Terry of the Public Health Service urged inoculation of any child under the age of six who had not had measles.

Dr. Hugh H. Hussey, director of the American Medical Association's Division of Scientific Activities, said the new vaccines made it possible to launch an all-out attack against one of the most common childhood diseases.

Both HEW Secretary Anthony J. Celebrezze and Dr. Terry were optimistic about the possibility of the vaccines putting the nation on the road toward elimination of the disease.

Development of the measles vaccines stemmed from the work of Nobel prize winner, Dr. John Enders of Harvard University and an associate, Dr. Thomas Peebles, who isolated a strain of the measles virus in 1954. From this original strain of the virus, designated the Edmonston strain, both the live and the killed vaccines have been produced.

Over the past several years, the vaccines have been successfully tested in both this country and abroad. Nearly 50,000 children in the United States alone have received these vaccines in field trials. Celebrezze characterized the field trials as "a long and painstaking evaluation" and said that "this was made possible by the cooperative efforts of scientists—both in and out of government—by physicians, the pharmaceutical industry, and thousands of unselfish and courageous parents who have permitted their children to participate in the field trials."

A Surgeon General's advisory committee on measles control, composed of government and non-government experts, suggested most physicians would want to administer the live vaccine, with an accompanying shot of gamma globulin to reduce reactions. One injection of the live vaccine has conferred complete immunity to more than 95% of those vaccinated and susceptible to measles. But when given alone it produces side reactions, including a rash and a fever of at least 103 degrees, in 30% or more of those vaccinated.

The advisory committee said the killed vaccine, because of its poorer immunizing qualities, should be used only where the live product wasn't suitable.

Experts said the live vaccine's protection was as good as that resulting from the natural disease and had been demonstrated to last more than four years.

The estimated number of measles in the U.S. was 6.8 million in 1962 and averages at least 4 million a year annually. In 1961 there were 434 deaths from measles.

Government health officials said they anticipated no federal financing or distribution of the measles vaccine. It was expected the distribution will be through physicians in private practice or through community "well baby" clinics.

★

The Food and Drug Administration banned the use of menadione, vitamine K-3, in foods and food supplements.

An FDA spokesman said the ban was ordered because the agency decided that the manufacturer had not provided sufficient data under the food additive law to prove compliance with safety requirements.

However, the spokesman denied reports that use of menadione posed a serious danger to unborn infants. He said expectant mothers who had taken it in prenatal vitamin capsules should not be alarmed.

The FDA action followed testimony by Dr. John O. Nester, a pediatrician on the FDA staff, before a Senate Government Operations Subcommittee that use of menadione in prenatal supplements might result in "brain damage, spasticity and death" to some newborn infants.

Nestor charged that the FDA had overruled expert medical opinion and permitted sale of some "new drugs imminently hazardous to the public health."

The FDA denied the charges that its nonmedical officials had been allowing potentially dangerous drugs to reach the market.

The FDA said that Dr. Nestor had never informed the agency of his complaints be-

fore he made the charge before the subcommittee.

"We categorically deny that laymen have been making medical decisions," the FDA said.

Current Status of Kerr-Mills

Forty states and territories have now taken advantage of the Kerr-Mills law by improving or expanding their Old Age Assistance medical programs . . . New Jersey is the latest state to begin vendor payments under OAA . . . Kerr-Mills' Medical Assistance for the Aged program has been enacted by 35 states and territories . . . The latest states with MAA programs are New Jersey, Wyoming, and South Dakota . . . Included in this list is the District of Columbia which appropriated funds in 1962 under which an MAA program is operating . . . The District is now drafting a specific MAA bill . . . In Indiana, the Senate and House passed an MAA bill but Democratic Governor Matthew Welsh vetoed it on March 15 . . . A legal technicality to override the veto is now being sought . . . Meanwhile, about 10 other state legislatures are considering MAA bills.

MEDICAL NEWS IN TENNESSEE

Dependents of Members in Military Forces

Beginning July 1, 1963, the dependents of active duty military personnel, who are members of the land, sea and air forces of North Atlantic Treaty Organization countries stationed or passing through the United States, will be entitled to the same care under the Medicare Program as those dependents of members of the uniformed services.

Physicians in Tennessee should be alerted since these dependents will be entitled to services under the Medicare Program of the Office for Dependents Medical Care, the same as for dependents of active duty personnel in the U.S. Armed Forces. The standard identification form will be presented and used as criteria for eligibility.

This announcement is made to Tennessee physicians as a matter of information and at the request of the Office for Dependents Medical Care.

Medical Symposium at Bristol

Approximately 140 physicians attended the five sessions of Bristol's second annual Medical Symposium on March 28th at the Bristol Memorial Hospital. Dr. John B. Hazard, Chairman of the Department of Pathology of the Cleveland (Ohio) Clinic and President of the International Academy of Pathology delivered a lecture on pathology. Dr. Kenneth R. Crispell, Professor of Internal Medicine at the University of Virginia School of Medicine, Charlottesville, discussed "Medical Diseases of the Thyroid Gland." Dr. John McClintock, president of the American Thyroid Association and Associate Clinical Professor of Surgery at Albany Medical College, New York, lectured on "Surgical Diseases of the Thyroid Gland."

Other lectures were presented by Dr. David W. Smith, Assistant Professor of Pediatrics, University of Wisconsin, who spoke on "Diseases of the Thyroid Gland in Children," and Dr. Armand Hendee, an Assistant Professor at Emory University School of Medicine in Atlanta, who delivered his talk on "The Thyroid Gland in Pregnancy."

Bristol physicians who served as hosts for the event included Dr. A. S. Crawford, chairman, and Drs. Thomas W. Green, C. J. Harkrader, Jr., W. C. Grigsby, Joe E. Mitchell, Bennett Cowan and Frank S. Blanton.

Accident Deaths Rise in Tennessee

Traffic fatalities increased by 11% during the past year, records show. Two thousand and sixty-six persons died in Tennessee accidents last year, and nearly one half of them were the result of traffic accidents. Disease of the heart remained the leading cause for death in the state, as reported by the Department of Public Health. Twelve thousand and thirty-nine persons died of heart ailments last year. Vascular lesions displaced malignant neoplasms as the second leading cause of death. There was also an increase in deaths from influenza and pneumonia. There were no deaths from poliomyelitis reported in Tennessee in 1962.

Tennessee Division, American Cancer Society

According to the Society, a total of $607,822 is to be spent on cancer research in Tennessee. The allocation includes clinical fel-

lowships to Vanderbilt University, University of Tennessee in Memphis, and Meharry Medical College in Nashville. Recipients of the grants are: Dr. Robert E. Richie, Vanderbilt; Dr. John K. Duckworth, University of Tennessee, and one to be announced from Meharry.

Vanderbilt University School of Medicine

Dr. Walter E. Nance has been appointed a Markle scholar by the John and Mary Markle Foundation. Dr. Nance, on leave from Vanderbilt to pursue postdoctoral training at the University of Wisconsin, will return in July as assistant professor of medicine, assuming responsibility for developing research in the field of medical genetics.

★

Dr. John Oates, senior scientist in clinical pharmacology at the National Heart Institute, has been appointed clinical pharmacologist. The appointment was made by Dr. Randolph Batson, dean of the medical school. Dr. Oates will join the faculty in July.

★

Dr. James D. Snell, Jr. has been awarded a three-year research grant in the amount of $22,500 by the American College of Physicians. Dr. Snell will return in July for research in the field of clinical cardiopulmonary physiology and clinical chest disease. He is now in research at New York Hospital.

★

Dr. Jack Davies has been appointed chairman of the Department of Anatomy. The announcement was made by Chancellor Alexander Heard. Dr. Davies is now serving as professor of anatomy at Washington University School of Medicine, St. Louis. He will assume his duties on August 1.

★

Dr. Geoffery Wooler, distinguished thoracic surgeon from Leeds, England, delivered the first annual Pauling King Lecture at the Vanderbilt University School of Medicine on March 22nd. Dr. Wooler is head of the Department of Thoracic and Cardiovascular surgery at the General Infirmary at Leeds, England. His topic was, "Surgical Treatment of Mitral Insufficiency."

★

Dr. William J. Darby, Professor of Biochemistry, was awarded the Jordan Star, by the Jordanian government in recognition of studies upon the anemias of children in the Middle East. This anemia, which he had also produced in monkeys, responds to vitamin E.

University of Tennessee College of Medicine

Almost 60% of the 199 graduates of the College of Medicine, from December, 1961 through September, 1962, remained in Tennessee for their internship. Of the 119 graduates interning in Tennessee, 69 were in Memphis, 27 in Nashville, 3 in Chattanooga, 18 in Knoxville, and 2 in Kingsport.

★

Dr. Robert Miles, assistant professor of surgery has developed a device which shows promise of preventing a fatal blood clotting.

★

The American Medical Association Education and Research Foundation gave a check in the amount of $22,480 to the medical units of the University of Tennessee. The presentation was made by Dr. Gilbert Levy, President of the Memphis-Shelby County Medical Society.

★

The UT Medical Units have protested against what they called "growing Government control" on the use of federal research grants, it was announced by Dr. M. K. Callison, Dean. "Restrictions have gotten much tighter. We are being loaded down with paper work. If it keeps mounting, we may be spending all of our time on paper work and little on research," Dr. Callison stated.

★

Dr. William H. Lee, Jr., assistant professor of surgery has resigned to accept an appointment at the Medical College of South Carolina, Charleston.

★

Dr. Richard C. Moon, assistant professor of physiology, has been awarded a Lederle Medical Faculty award. He was one of 13 persons in the United States and Canada to receive the award.

★

The south portion of the sixth floor of the Institute of Pathology is being remodeled and equipped at a cost of about $46,000 to provide new quarters for the Department of

Microbiology. The department recently was separated from the Department of Pathology and Dr. C. Ray Womack named chairman. Dr. Womack said the project will provide for the centralization of the main departmental offices and laboratories and will include a new preparation and sterilization room.

★

Meharry Medical College

Dr. Horace Goldie, director of Meharry Medical College's Division of Onocology, has been awarded a grant of $20,975 by the National Institutes of Health, and one of $15,000 by the Atomic Energy Commission. The NIH grant will be used to investigate the incidence and distribution of mouse tumor metastases. The AEC grant will be used to develop, in experimental animals, new methods of radioisotope application cancer and particularly against transfer and spread of cancer in experimental animals.

★

Dr. Delores Shockley has received a cash award of $18,401 because of her outstanding achievements as a medical educator. The 32 year old assistant professor in Pharmacology is one of 13 medical school faculty members across the country to share in the $250,000 given by Lederle Laboratories.

★

Dr. Charles B. Puestow, chief of surgical services at the Veterans Administration Hospital, Hines, Illinois, gave the annual Hale-McMillan lecture at Meharry Medical College on March 25th.

University of Tennessee Research Hospital

The Air Force has granted Dr. McChesney Goodall $64,000 to continue space medical research on a problem, the importance of which was emphasized by the condition of Astronaut Walter M. Shirra, Jr. after his six-orbit flight last October 3rd.

Nashville Obstetrical-Gynecological Society

Dr. Herbert Thomas of Birmingham, Alabama, visiting professor of obstetrics and gynecology at the University of Alabama, addressed members of the Nashville Society on March 26th at the Belle Meade Country Club. His subject was, "Abnormal Uterine Bleeding."

PERSONAL NEWS

Dr. Wm. G. Crook, Jackson, presented a paper on allergy treatment and research to the 19th annual International Scientific Congress of the American College of Allergists.

Dr. Robert H. Haralson, Jr., Maryville, has been elected president of the Tennessee State Society of Anesthesiologists.

Dr. Lawrence R. Nickell, formerly of Chattanooga, is now associated with the Maury County Hospital in Columbia in the practice of radiology.

Dr. Rudolph M. Landry, Chattanooga, has been named president-elect of the Association of Surgeons of the Southern Railway System. **Dr. J. Marsh Frere, Sr.,** Chattanooga, was re-elected secretary.

Dr. James Prose, Knoxville, recently addressed the East Tennessee Society of Medical Technologists on the subject, "Civil Defense in Relations to Medical Technology."

Dr. Frank London, Knoxville, has been appointed delegate to the national convention of the American Society of Internal Medicine. The alternate delegate named was **Dr. Richard C. Sexton, Jr.,** Knoxville.

Dr. John Lay announces his association for the practice of medicine with the Laughlin Clinic in Greeneville.

Dr. W. F. Murrah, Jr., Memphis, has assumed the office of president of the Tennessee Academy of Ophthalmology and Otolaryngology.

Dr. Jerry Francisco, Memphis, has been named chief medical examiner for Tennessee.

Dr. Robert F. Ackerman, Memphis, recently addressed the Memphis Dietetic Association at Kennedy Hospital.

Dr. Ralph M. Kniseley, Oak Ridge, has been named assistant chairman of clinical research and training of the medical division of the Oak Ridge Institute of Nuclear Studies.

Dr. Glenn E. Horton, Memphis, presented an exhibit on pulmonary function at the recent meeting of the American College of Allergy in New York.

The East Tennessee Chapter of the Health Physics Society heard an informative and educational program presented recently by **Dr. Gould A. Andrews,** Oak Ridge.

Fellowship in the Industrial Medical Association was recently conferred upon **Dr. Gino Ferdinand Zanolli,** Oak Ridge.

Dr. Guy Francis, Chattanooga, has been appointed an associate councilor of the Southern Medical Association. **Dr. Benjamin F. Byrd, Jr.,** Nashville, serves as councilor of Southern Medical for Tennessee. The four other councilors are: **Dr. Roy A. Douglass, Sr.,** Huntingdon; **Dr. William A.**

Garrott, Cleveland; **Dr. I. Frank Tullis,** Memphis; and **Dr. Charles P. Wofford,** Johnson City. Other Tennessee officers assisting in the formulation of the program for the Southern Medical Association are: **Dr. R. H. Kampmeier,** Nashville; **Dr. Robert N. Buchanan, Jr.,** Nashville; **Dr. Cyrus C. Erickson,** Memphis; **Dr. William P. Maury, Jr.,** Memphis; and **Dr. Greer Ricketson,** Nashville.

Dr. William J. Sheridan, Jr., Chattanooga, has been added to the Board of Trustees of the Siskin Memorial Foundation.

ANNOUNCEMENTS

Calendar of Meetings 1963

State

May 22-23—Postgraduate Seminar in Psychiatry, Central State Hospital and Vanderbilt University School of Medicine, Nashville.

May 22-24—Postgraduate Study in Fractures and Dislocations, University of Tennessee College of Medicine, Memphis.

Regional

May 20-24—Cardiopulmonary Disease: American College of Physicians Course, Indiana University Medical Center, Indianapolis, Indiana.

May 22-23—Respiratory Distress Syndrome and Resuscitation of the Newborn, University of Kentucky Medical School, Lexington, Kentucky.

May 27-29—American Ophthalmological Society, The Homestead, Hot Springs, Virginia.

June 24-27—American Orthopedic Association, Homestead, Hot Springs, Virginia.

June 24-28—Internal Medicine: Current Physiological Concepts in Diagnosis and Treatment, American College of Physicians Course, University of Cincinnati College of Medicine, Cincinnati, Ohio.

National

May 27-31—Five Day Refresher Course in Pediatrics for Pediatricians and General Practitioners, The Children's Hospital of Philadelphia, Philadelphia, Pa.

June 6-8— American Geriatrics Society, Queen Elizabeth Hotel, Montreal.

June 10-12—American Neurological Association, Claridge Hotel, Atlantic City, New Jersey.

June 13-16—American College of Angiology, President Hotel, Atlantic City, New Jersey.

June 13-17—American College of Chest Physicians, Ambassador Hotel, Atlantic City, New Jersey.

June 16-20—Woman's Auxiliary to the American Medical Association, Atlantic City, New Jersey.

June 16-20—American Medical Association Annual Meeting, Convention Hall, Atlantic City, New Jersey.

Hamilton County Tuberculosis Association

The annual symposium on "Chronic Pulmonary Diseases" will be presented May 20-21 at Lakeshore Lodge in Chattanooga. Dr. L. Spires Whitaker is chairman of the symposium committee.

The panelists include: Dr. John Stewart Chapman, professor of medicine and assistant dean of postgraduate education, Southwestern Medical School, University of Texas, Dallas; Dr. Gerritt Willem Hendrik Schepers, pathologist for E. I. du Pont de Nemours & Co., Wilmington, Delaware; and Dr. Felix A. Hughes, chief of thoracic surgery and the thoracic residency program at the Veterans Administration Medical Teaching Group Hospital, Memphis.

Physicians in Tennessee are invited to the meeting, sponsored in cooperation with the Chattanooga-Hamilton County Medical Society and the Chattanooga Area Academy of General Practice. The meeting is approved by the American Academy of General Practice for five hours of Category 1 Credit.

Trudeau School of Tuberculosis and Other Pulmonary Diseases

The 48th Session of the Trudeau School of Tuberculosis will be held in Saranac Lake, N.Y. from June 3rd to 21st. This annual, unique postgraduate course for physicians, conducted under the auspices of the Trudeau Foundation and supported by the Lillia Babbitt Hyde Foundation, provides outstanding instruction in the field of chest diseases at a minimal tuition of $100 for a three weeks session. Attendance at the Trudeau School carries with it a thorough review for specialization in pulmonary diseases or for work in pulmonary diseases or for work in public health involving tuberculosis.

Inquiries should be addressed to the Secretary, Trudeau School of Tuberculosis and Other Pulmonary Diseases, Box 670, Saranac Lake, N.Y.

Upper Cumberland Medical Society

The Upper Cumberland Medical Society will convene at Red Boiling Springs, Tennessee, Tuesday and Wednesday, June 18-19, 1963.

Hospitality for Women Physicians

All women physicians attending the AMA in Atlantic City are invited to rest in the Hospitality Room No. 2 on the Mezzanine Floor in the Convention Hall. On June 18 from 4 to 6 p.m., The American Medical Women's Association is serving tea in the Hospitality Room. All women physicians and their friends are invited.

PLACEMENT SERVICE

The Placement Service of the Tennessee State Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville 5, Tennessee.

Locations Wanted

A 38 year old general practitioner, with residency training in surgery, would like clinical, assistant, associate, industrial or institutional practice in any size community of Tennessee. Graduate University of Virginia; married; Protestant. Available anytime. LW-446

◆

A 30 year old Dermotologist would like clinical or associate practice, with part-time teaching, in west Tennessee town. Graduate of University of Texas Medical Division; married; Episcopalian; available July 1963. LW-447

◆

A Board certified general surgeon, with an interest in urology, graduate of Vanderbilt School of Medicine, would like clinical or associate practice in any city or town in middle or west Tennessee. Age 34; married; Protestant. Available anytime. LW-453

◆

A 31 year old Board certified surgeon, candidate of American College of Surgeons, would like clinical or associate practice in Tennessee city of 40,000 plus. Married; Methodist; graduate of Vanderbilt School of Medicine; now in military service. Available July 1963. LW 477

◆

A 30 year old general practitioner, now in military service, desires clinical practice in East or Middle Tennessee locality with 1,500 to 10,000 population. Married; graduate Duke University. Available June 1963. LW-478

◆

A 37 year old Pediatrician, now in residency, would like associate practice in city of 10,000 plus; with no preference as to location. Graduate of the Medical College of South Carolina. Available May 1963. LW-480

◆

A 37 year old Ophthalmologist, now in residency, would like associate or private practice with no preference as to size or location. Married; Methodist. Graduate of the Medical College of Virginia. Available July 1963. LW-481

◆

A 31 year old Psychiatrist, now in residency training, would like clinical, institutional, or solo practice in any size community of Tennessee. Prefers Middle Tennessee but will consider other sections. Graduate of Vanderbilt School of Medicine; Baptist; married. Available July 1964. LW-482

◆

A 32 year old Ob-Gyn, graduate of the University of Tennessee Medical School, would like clinical, associate, or group practice in any community of Tennessee 15,000 to 50,000 population. Methodist; married. Now in residency. Available September 1963. LW-483

A 31 year old physician, now in residency, would like to establish clinical, assistant, associate, or institutional practice of Urology in East or Middle Tennessee city of 25,000 plus. Graduate of the University of Virginia; married; Baptist. Available July 1964. LW-488

Physicians Wanted

A Pediatrician, with two years internship and one year residency, needed in Middle Tennessee town of 8,000. Office space available near hospital. PW-137

◆

A well established, prosperous community, immediately adjacent to large city, in need of general practitioner to establish solo or clinical practice. PW-168

◆

A physician in East Tennessee city of 2,000 would like to share his office and equipment with an associate general practitioner. Good housing facilities available. Hospital 15 miles. PW-169

◆

A hospital in upper East Tennessee county with population of over 30,000, would like a general surgeon to establish his own surgical practice in area. Would prefer surgeon with one year internship, three years residency; Board qualified or Board preferred. Good industrial area with excellent schools and churches. Near TVA lakes. PW-173

◆

FOR SALE: Good medical practice; new, modern, centrally heated and air-conditioned, fully equipped office in uptown location of Middle Tennessee town of 10,000 (trade area 30,000). Financing can be arranged to suit buyer. Owner desires to retire from private practice. PW-174

◆

General practice available in upper West Tennessee community of over 800; hospital facilities nearby. No other doctor in area. Clinic owned by town, leased, completely equipped. Well established practice. Housing available. Any financial arrangements easily worked out. PW-179

◆

Middle Tennessee city of over 12,000 population would like physician as replacement in clinic. General practitioner with surgical experience preferred but not required. Housing and office space with equipment available. PW-188

◆

FOR RENT: A building for clinic in well populated section of a large metropolitan city. Ample space for two physicians. Parking space sufficient. PW-189

◆

Establishment of clinic or office building for the practice of Ob-Gyn and Pediatrics needed in large city on main thoroughfare. All facilities available. Will build to meet specifications. No other specialties in that area. PW-190

◆

General practitioner needed in East Tennessee town of over 800; hospital located in town. Office space and equipment available. Associate or assistant. PW-192

Sustained high-level protection in peptic ulcer



all day



all night



with b.i.d. dosage

PRO-BANTHĪNE P.A.®

Brand of PROPANTHELINE Bromide

Prolonged-Acting Tablets—30 mg.

Pro-Banthīne P.A. provides the full anticholinergic benefit of Pro-Banthīne® plus the greater convenience and more consistent therapeutic effect of a long-acting dosage form.

Asher[1] has summarized the advantages of prolonged-action dosage forms: "First, they should be of great value in the suppression of night acid secretion in the ulcer patient. Also, in the ulcer patient, with high acid secretion during the day these drugs should be of help when used with regular doses of shorter-acting anticholinergic agents. A third application is in the chronic treatment of certain patients whose tendency to recurrent ulcer has been established."

Pro-Banthīne P.A. offers consistent, sustained anticholinergic effects for more consistent suppression of acid secretion and motility on simple twice or thrice daily dosage in most patients.

Suggested Adult Dosage:
One tablet at bedtime and one in the morning, supplemented, if necessary, by additional tablets of Pro-Banthīne P.A. or standard Pro-Banthīne to meet individual requirements.

Pro-Banthīne P.A.
is supplied as capsule-shaped, peach-colored tablets of 30 mg. each.

Contraindications:
Glaucoma; severe cardiac disease.

Possible Side Actions:
Xerostomia, mydriasis and, occasionally, hesitancy in urination. Theoretically, a curare-like action may occur.

G.D. SEARLE & CO.
CHICAGO 80, ILLINOIS
Research in the Service of Medicine

1. Asher, L. M.: The Choice of Anticholinergic Drugs in the Treatment of Functional Digestive Diseases, Amer. J. Dig. Dis. 4:260-275 (April) 1959.



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE MARK ®



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can . . . 75c
Pt. bottle with dispensing can $2.50
Qt. bottle with dispensing can $4.00

Plus post.

White Surgical Supply Co.

SURGICAL SUPPLIES & ACCESSORIES

515 West Church Ave. Knoxville 7, Tennessee

Telephone 3-1186

Opportunity for general practitioner or ENT specialist. Attractive rent and location in central business district of fast growing East Tennessee city.

For further information write:

Box "A"—Tennessee Medical Association

112 Louise Avenue
Nashville 5, Tennessee

PATRONIZE

OUR

ADVERTISERS

Solfoton®

for mild, continuous sedation

Each tablet (or capsule) contains 16 mg. phenobarbital blended with 65 mg. Bensulfoid®. The Bensulfoid is an inert diluent present to permit slow absorption of the phenobarbital. The usual dosage is one tablet or capsule after meals and at bedtime. Solfoton is especially adapted to prolonged use because of its virtual freedom from depression and other side effects. Contra-indications: identical to those of ¼ gr. phenobarbital.

REFER TO PDR

Poythress, White Section, Page 808 (1963 edition) and Product Identification Section

COMPLETE INFORMATION AND CLINICAL SAMPLES SENT UPON REQUEST

Dispensed in bottles of 100 and 500 tablets or capsules

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

HIGHLAND HOSPITAL, INC.

FOUNDED IN 1904

ASHEVILLE, NORTH CAROLINA

Affiliated with Duke University





A nonprofit psychiatric institution, offering modern diagnostic and treatment procedures—insulin, electroshock, psychotherapy, occupational and recreational therapy—for nervous and mental disorders.
The Hospital is located in a 75-acre park, amid the scenic beauties of the Smoky Mountain Range of Western North Carolina, affording exceptional opportunity for physical and emotional rehabilitation.
The OUT-PATIENT CLINIC offers diagnostic services and therapeutic treatment for selected cases desiring non-resident care.

R. CHARMAN CARROLL, M.D.
Medical Director

ROBERT L. CRAIG, M.D.
Associate Medical Director

JOHN D. PATTON, M.D.
Clinical Director



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS and SYMPTOMS**: Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS**: Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT**: Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

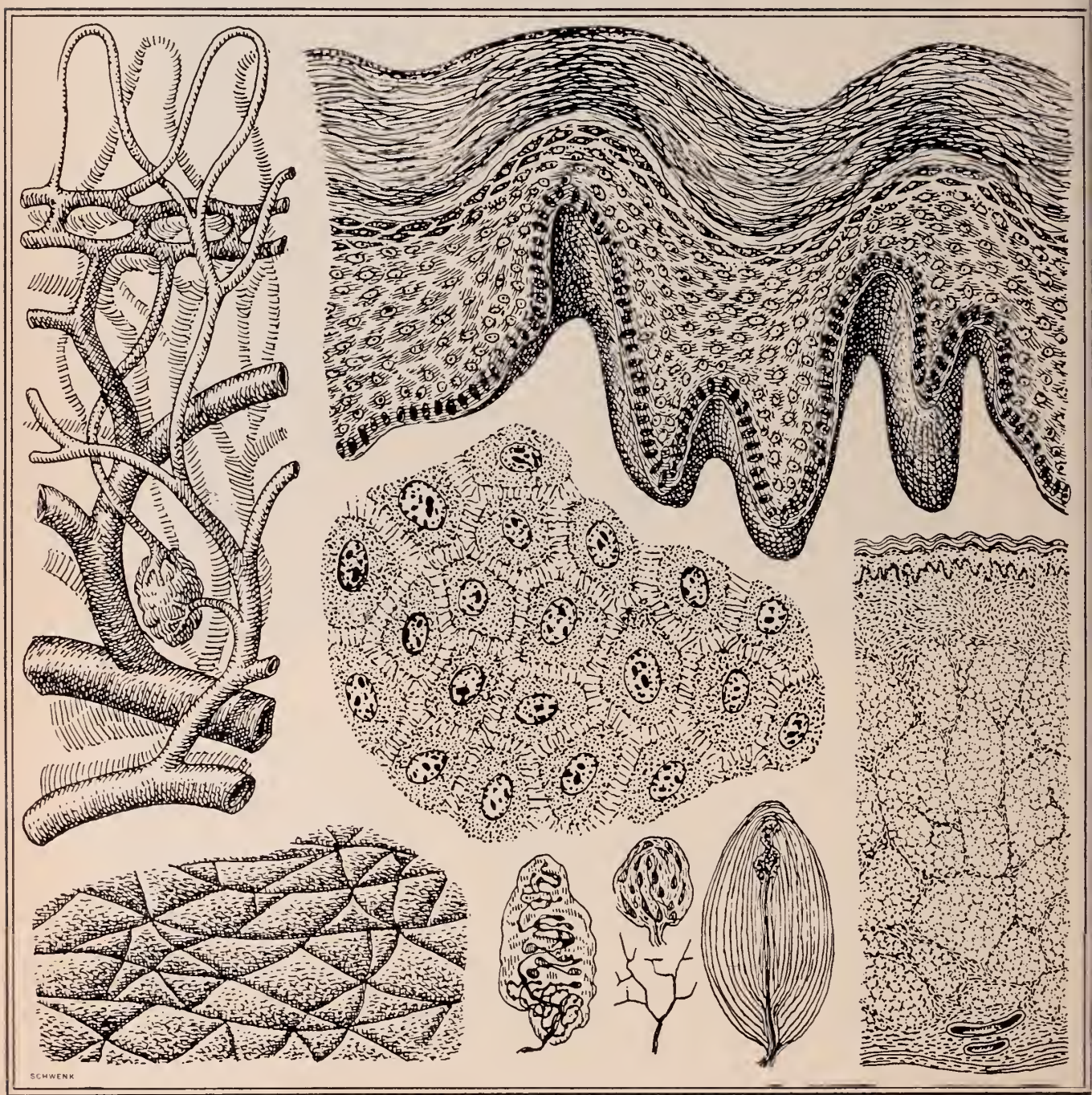
Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN
1104 Sudekum Bldg.
Nashville, Tenn.

SETH W. SIZER
1211 James Bldg.
Chattanooga, Tenn.

THERON M. LEMLY
1309 Poplar Ave.
Memphis, Tenn.


SCHWENK

Skin Deep

Allergic and inflammatory dermatoses, including psoriasis, have in many patients shown dramatic response to ARISTOCORT Triamcinolone systemic therapy. But it also provides gratifying symptomatic control with only minimal interference with other metabolic functions. In this respect, ARISTOCORT Triamcinolone, when compared with other corticosteroids, old and new, is distinguished. Typical steroid problems of sodium retention and edema, undesirable euphoria, or voracious appetite and excessive weight gain rarely occur.

ARISTOCORT Triamcinolone is indicated when anti-inflammatory, anti-allergic action of glucocorticoids is desired. SIDE EFFECTS of glucocorticoids generally: Cushingoid effects, hirsutism, leucopenia, purpura, vertigo, fatigue, increased hyperglycemia, osteoporosis, gastrointestinal hemorrhage, cataracts, growth suppression in children and increased intracranial pressure. Other glucocorticoid effects thought more likely to occur with triamcinolone: reversible weakness of muscles and flushing of face.

PRECAUTIONS: ARISTOCORT Triamcinolone should be used with extreme caution in viral infection, particularly herpes simplex and chicken pox, in tubercular or fungal infection, in active peptic ulcer, acute glomerular nephritis or myasthenia gravis.

FORMULA—Tablets (scored) containing 1 mg., 2 mg. or 4 mg. of triamcinolone. Syrup — 2 mg. of triamcinolone diacetate per 5 cc. (5 mg. of triamcinolone diacetate is equivalent to 4 mg. of triamcinolone).

Aristocort®
Triamcinolone

Maximum steroid benefits with minimum steroid penalty

Lederle LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York
164-R-3 (DC31-S)

SAINT ALBANS

PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

STAFF

James P. King, M.D., Director

Daniel D. Chiles, M.D.
Clinical Director

James K. Morrow, M.D.

Silas R. Beatty, M.D.

William D. Keck, M.D.

Edward W. Gamble, III, M.D

J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.

Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: DAvenport 5-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Phone: CLifford 3-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
B. B. Young, M.D.
Phone: DIckens 6-7691

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 218, Ext. 55 and 56

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply & Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

WOULD YOUR OFFICE RENT STOP . . . IF YOU WERE HOSPITALIZED FOR SIX MONTHS?

Of course not! That's just one of the reasons why wise physicians and dentists take advantage of broad new benefits available in our "Loss of Time" policy.

We pay YOU each month when you are hospitalized or disabled.

For full details, at no obligation, simply send the coupon below.

PHYSICIANS MUTUAL INSURANCE CO.
formerly
Physicians Casualty and Health Associations
"The Doctors Company"
Insuring Physicians & Dentists for 60 years.

Physicians Mutual Insurance Company
115 So. 42nd Street
Omaha 31, Nebraska

Please send details on your "Loss of Time" policy.

NAME_____ AGE_____

ADDRESS_____

CITY_____ STATE_____

Revised Plan Increased Benefits For Accident and Sickness Available To Members of The Tennessee Medical Association

Who Can Qualify for This Insurance

Ordinary Accident Benefit	Total Ordinary Accident and Hospital Benefit
$600.00 Per Month	$1,200.00 Per Month (3 months)

Monthly Benefits are payable from the First Day of Disability and will be paid during your entire lifetime as long as totally disabled from accident.

Sickness Benefit	Total Sickness and Hospital Benefit
$600.00 Per Month	$1,200.00 Per Month (3 months)

Sickness Monthly Benefit ten years certain if totally disabled.

General Provisions

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.00
May be written from $100.00 to $600.00 per month inclusive
Monthly Accident Benefits from First Day
Monthly Sickness Benefits from First Day
May also be issued with elimination periods, if desired
Individually NON-CANCELLABLE EXCEPT for—

- Non-Payment of Premium
- Retired from Practice
- Loss of Membership in The Tennessee State Medical Association

Guaranteed Renewable to age 70 Renewable thereafter at the option of the Company.

Sovereign States Insurance Company

1808 WEST END AVENUE
NASHVILLE, TENNESSEE

For full information without obligation, contact our Home Office, 1808 West End Avenue, Nashville

Professional Department, Sovereign States Insurance Co.

Please send complete information relative to program offered in The Tennessee Medical Journal.

NAME _____ AGE _____

ADDRESS _____ TOWN _____

"A Participating Insurance Company Underwriting the Tennessee Plan"

Tennessee Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

Underwritten By

Commercial Insurance Company

Newark, New Jersey



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

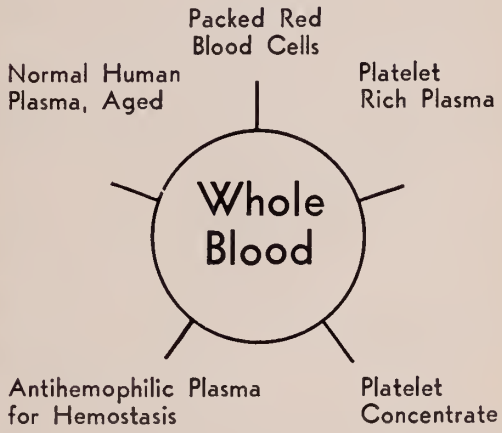
- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN
Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities
KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE

TENNESSEE MEDICAL ASSOCIATION 1963-1964 STANDING COMMITTEES

Committee on Scientific Work and Postgraduate Education—R. H. Kampmeier, Chairman, Nashville; W. Powell Hutcherson, Chattanooga; Robert P. McBurney, Memphis; Eugene J. Spiotta, Memphis.
(Specialty Representatives To Be Named)

Committee on Hospitals—Robert M. Miles, Memphis, Chairman (1965); James A. Burdette, Knoxville (1966); C. D. Hawkes, Memphis (1965); Harry T. Moore, Jr., Nashville (1965); Chester K. Jones, Jackson (1964) John W. Adams, Jr., Chattanooga (1964); Thomas K. Young, Jr., Columbia (1964) George L. Smith, Winchester (1965) Granville Hudson, Nashville (1966); Brian T. Shorney, Nashville (1966).

Legislative and Public Policy Committee—Tom E. Nesbitt, Chairman, Nashville (1964); H. L. Monroe, Erwin (1965); Charles C. Smeltzer, Knoxville (1966); George K. Henshall, Chattanooga (1964); Sam H. Hay, Murfreesboro (1965); K. M. Kressenberg, Pulaski (1966); John G. Riddler, Jackson (1965); Byron O. Garner, Union City (1966); W. David Dunavant, Memphis (1964). **(Appointed for One-year Terms)**—Alvin J. Ingram, Memphis (1964); Perry J. Williamson, Knoxville (1964); Robert E. Baldwin, Chattanooga (1964); Warren B, Henry, Chattanooga (1964); Chas. C. Trabue, IV, Nashville (1964); James T. Callis, Crossville (1964); Thomas F. Frist, Nashville (1964); E. T. Brading, Johnson City (1964); O. M. McCallum, Henderson (1964); A. Roy Tyrer, Memphis (1964); Clifton Greer, Nashville (1964); Charles A. Trahern, Clarksville (1964); R. H. Kampmeier, Ex-officio, Nashville (1964).

Liaison Committee to the Public Health Department—Wm. A. Hensley, Chairman, Cookeville (1966); C. D. Hawkes, Memphis (1965); William I. Proffitt, Cleveland (1967); Lamb B. Myhr, Jackson (1967); Thomas S. Weaver, Nashville (1964).

Committee on Insurance—Wm. T. Satterfield, Chairman, Memphis (1965); Augustus McCravey, Chattanooga (1964); Garth Fort, Nashville (1966); George L. Inge, Knoxville (1964); B. F. Byrd, Sr., Nashville, Consultant.

Committee on Cancer—B. F. Byrd, Jr., Chairman, Nashville (1965); Edwin W. Cocke, Jr., Memphis (1965); Ralph H. Monger, Knoxville (1964); Hollis E. Johnson, Nashville (1964); S. S. Marchbanks, Chattanooga (1965); G. Sydney McClellan, Nashville (1965); John M. Higgason, Chattanooga (1965); Homer P. Williams, Bristol (1965); Cyrus C. Erickson, Memphis (1965).

Committee on Memoirs—Henry L. Douglass, Chairman, Nashville (1965); A. M. Patterson, Chattanooga (1966); S. Fred Strain, Sr., Memphis (1965).

Committee on Health Insurance—B. K. Hibbett, III, Chairman, Nashville; Joseph W. Johnson, Jr., Chattanooga; Robert N. Sadler, Nashville; E. L. Caudill, Jr., Elizabethton; James J. Callaway, Nashville; Wm. A. Garrott, Cleveland; Greer Ricketson, Nashville; Harry T. Moore, Jr., Nashville; William G. Crook, Jackson; J. Cash King, Memphis; Thomas F. Parrish, Nashville; W. T. Satterfield, Memphis; Howard A. Boone, Memphis; Robert N. Buchanan, Jr.,; Nashville; Elgin P. Kintner, Maryville; H. K. Turley, Memphis; A. Roy Tyrer, Memphis; Gilbert A. Rannick, Johnson City; John G. Riddler, Jackson; Charles R. Zirkle, Knoxville; Mr. Clyde York, Columbia; Mr. Charles L. Cornelius, Sr., Nashville; R. H. Kampmeier, Ex-officio, Nashville.
Executive Sub-Committee—B. K. Hibbett, III, Chairman, Nashville; Robert N. Sadler, Nashville; James J. Callaway, Nashville; Thomas F. Parrish, Nashville; Mr. Charles L. Cornelius, Sr., Nashville; R. H. Kampmeier, Ex-officio, Nashville.

Advisory Committee to the State Department of Public Welfare—Aubrey Harwell, Chairman, Nashville (1965); Carl A. Hartung, Chattanooga (1967); F. T. Billings, Jr., Nashville (1964); Harold J. Starr, Chattanooga (1966); Joseph J. Baker, Nashville (1966).

Communications and Public Service Committee—R. A. Calandruccio, Chairman, Memphis (1964); Addison B. Scoville, Jr., Nashville (1964); Malcolm Campbell, Johnson City (1965); Wm. A. Garrott, Cleveland (1966); Wm. K. Owen, Pulaski (1964); Blair D. Erb, Jackson (1965); Roy L. McDonald, Oneida (1964); Charles L. Clarke, Memphis (1966); Morse Kochtitzky, Nashville (1966); R. H. Kampmeier, Ex-officio (1964).
Members State-at-Large—Walter Benedict, Knoxville (1965); J. Kelley Avery, Union City (1966); Augustus McCravey, Chattanooga (1964); Thomas F. Frist, Nashville (1964); Geo. D. Dodson, Jackson (1966).
Executive Sub-Committee—R. A. Calandruccio, Chairman, Memphis (1964); Addison B. Scoville, Jr., Nashville (1964); R. H. Kampmeier, Ex-officio (1964); Thomas F. Frist, Nashville (1964); Morse Kochtitzky, Nashville (1966).

Grievance Committee—Harmon L. Monroe, Chairman, Erwin (1964); W. O. Vaughan, Nashville (1965); William J. Sheridan, Chattanooga (1966).

Rural Health Committee—Julian C. Lentz, Jr., Chairman, Maryville (1965); Wm. N. Cook, Columbia (1966); Robert H. Elder, Cedar Hill (1966); John B. Dorian, Memphis (1966); Eugene M. Ryan, South Pittsburg (1966).

Committee on Tennessee Medical Foundation—Harrison J. Shull, Chairman, Nashville (1966); Thomas G. Dorrity, Memphis (1966); B. M. Overholt, Knoxville (1966); Julian K. Welch, Jr., Brownsville (1964); Daugh W. Smith, Nashville (1964); Ralph H. Monger, Knoxville (1964); Robert N. Buchanan, Jr., Nashville (1965); J. Paul Baird, Dyersburg (1965); John E. Kesterson, Knoxville (1965).

SPECIAL COMMITTEES

Consultative Committee on Administration of Voluntary Prepaid Medical Care Plans—Carl N. Gessler, Chairman, Nashville; R. B. Wood, Knoxville; H. P. Clemmer, Milan; William R. Bishop, Chattanooga; J. J. Range, Johnson City; George L. Smith, Winchester; J. Palmer Moss, Memphis; Garth E. Fort, Nashville; Baker Hubbard, Jackson; Howard A. Boone, Memphis.

Committee on Disaster Planning—George R. Livermore, Jr., Memphis, Chairman; Harmon L. Monroe, Erwin; Fred D. Ownby, Nashville; Bruce R. McCampbell, Knoxville; Charles W. Reavis, Chattanooga; Nat Winston, Chattanooga; Henry Packer, Memphis; Wm. F. Gallivan, Knoxville; John Beveridge, Nashville; Billy N. Golden, Kingsport.

Committee on Occupational Health—George E. Duncan, Chairman, Nashville; Moore J. Smith, Chattanooga; Peter J. Flippen, Tullahoma; Louis G. Britt, Memphis; H. L. Monroe, Erwin; Dudley G. Lockwood, Jr., Memphis; Alfred N. Costner, Johnson City.

Liaison Committee to the United Mine Workers of America—John H. Saffold, Chairman, Knoxville; Cecil E. Newell, Chattanooga; B. M. Overholt, Knoxville; Charles P. Wofford, Johnson City.

Advisory Committee to the Woman's Auxiliary—Roland H. Myers, Chairman, Memphis; Robert L. Akin, Knoxville; Fred E. Cowden, Nashville; E. E. Edwards, McKenzie.

Committee on Blood Banks—Merlin L. Trumbull, Chairman, Memphis; L. W. Diggs, Memphis; John W. Adams, Jr., Chattanooga; David K. Gotwald, Nashville; R. J. Leffler, Knoxville; Thomas P. Potter, Johnson City.

Committee on Governmental Medical Services—E. G. Kelly, Chairman, Memphis; J. Paul Baird, Dyersburg; Thurman Shipley, Cookeville; Cleo M. Miller, Nashville; Charles C. Smeltzer, Knoxville; George W. Holcomb, Jr., Nashville; Thomas L. Waring, Memphis; C. Kenneth Slade, Johnson City; Charles N. Hickman, Bells.
Committee on **Mental Health**—Frank H. Luton, Chairman, Nashville; Joseph W. Johnson, Jr., Co-Chairman, Chattanooga; E. L. Caudill, Jr., Elizabethton; Robert M. Foote, Nashville; Hollis C. Miles, Chattanooga; Joseph J. Baker, Nashville; Dan Sanders, Nashville; Richard F. Kelsey, Memphis; Carl C. Gardner, Jr., Columbia; John D. Griffith, Clarksville; O. S. Luton, Erin; P. J. Sparer, Memphis; Clifton E. Irwin, Knoxville; Robert G. Jordan, Memphis; Robert B. Hagood, Chattanooga.

Committee on Health Project Contest—Lawrence L. Cohen, Chairman, Memphis; William N. Dawson, Maryville; George K. Henshall, Chattanooga; Mrs. W. E. Van Order, Chattanooga; Mrs. James K. McQuire, Memphis.

Committee on Sight Conservation—Fred Rowe, Jr., Chairman, Nashville; David H. Turner, Chattanooga; Reese W. Patterson, Jr., Knoxville; William H. Roberts, Humboldt; James W. Wilkes, Jr., Columbia; Chas. O. Parker, Johnson City; Howard R. Kennedy, Clarksville; G. H. Berryhill, Jackson; William A. Garrott, Cleveland; Roland H. Myers, Memphis.

Tennessee Committee for the American Medical Education and Research Foundation—David S. Carroll, Chairman, Memphis; B. F. Byrd, Jr., Nashville; D. T. Rolfe, Nashville.

Interprofessional Liaison Committee—Robert M. Ruch, Chairman, Memphis; Fred P. Sage, Memphis; Robert J. Allen, Elizabethton; William H. Edwards, Nashville; W. Houston Price, Chattanooga.

Committee on Youth and Education—John H. Burkhart, Chairman, Knoxville; Robert G. Brashear, Knoxville; Robert M. Foote, Nashville; Dan Sanders, Nashville; Minnie R. Vance, Chattanooga; Ben D. Hall, Johnson City; Lawrence L. Cohen, Memphis; W. M. Phillips, Trenton; J. Kelley Avery, Union City.

Committee on Medicine and Religion—H. Dewey Peters, Chairman, Knoxville; T. G. Pennington, Nashville; Gilbert J. Levy, Memphis; J. Malcolm Aste, Memphis; Ira L. Arnold, Chattanooga.

OFFICERS OF THE TENNESSEE MEDICAL ASSOCIATION, 1963-64

President—Bland W. Cannon, M.D., Suite 402-B, 20 So. Dudley Street, Memphis
President-Elect—R. H. Kampmeier, M.D., Vanderbilt Hospital, Nashville
Vice-President—Joseph L. Raulston, M.D., 5338 Broadway, N.E., Knoxville
Vice-President—Charles A. Trahern, M.D., 1724 Memorial Drive, Clarksville
Vice-President—Henry B. Gotten, M.D., 1412 Madison Avenue, Memphis
Secretary—John H. Burkhart, M.D., 3000 No. Broadway, Knoxville
Executive Director—Mr. J. E. Ballentine, 112 Louise Avenue, Nashville 5

BOARD OF TRUSTEES

*Robert M. Finks, M.D., Chairman and Treasurer (1964) 2122 West End Ave., Nashville
*J. Malcolm Aste, M.D., (1964) 188 South Bellevue, Memphis
John H. Burkhart, M.D., (1964) 3000 No. Broadway, Knoxville
Bland W. Cannon, M.D., (1965) 402-B, 20 South Dudley Street, Memphis
*E. L. Caudill, Jr., M.D., (1966) 114 East H Street, Elizabethton
C. D. Hawkes, M.D., (1966) 220 So. Claybrook Street, Memphis
G. Baker Hubbard, M.D., (1966) Jackson Clinic, Jackson
*Joseph W. Johnson, Jr., M.D., (1965) Interstate Building, Chattanooga
*R. H. Kampmeier, M.D., (1966) Vanderbilt Hospital, Nashville
K. M. Kressenberg, M.D., (1966) 215 Cedar Lane, Pulaski
William J. Sheridan, M.D., (1964) Medical Arts Building, Chattanooga
*Executive Committee of Board of Trustees.

SPEAKER OF THE HOUSE

J. Malcolm Aste, M.D., 188 South Bellevue, Memphis
Vice-Speaker—Tom E. Nesbitt, M.D., 1921 Hayes Street, Nashville

COUNCILORS

First District—J. O. Hale, M.D., 401 North Boone St., Johnson City (1964)
Second District—B. M. Overholt, M.D., 717 Cumberland Avenue, S.W., Knoxville (1965)
Third District—M. F. Langston, M.D., 103 Palisades, Signal Mountain (1964)
Fourth District—Kenneth L. Haile, M.D., 137 W. Second Street, Cookeville (1965)
Fifth District—Coulter S. Young, M.D., Manchester (1964)
Sixth District—Harry T. Moore, Jr., M.D., 326 Mid-State Medical Center, Nashville (1965)
Seventh District—Wm. K. Owen, M.D., Pulaski (1964)
Eighth District—O. M. McCallum, M.D., Henderson (1965)
Ninth District—R. David Taylor, M.D., 620 Main Street, Dyersburg (1964)
Tenth District—Francis H. Cole, M.D., 188 South Bellevue, *Chairman*, Memphis (1965)

DELEGATES TO THE AMA

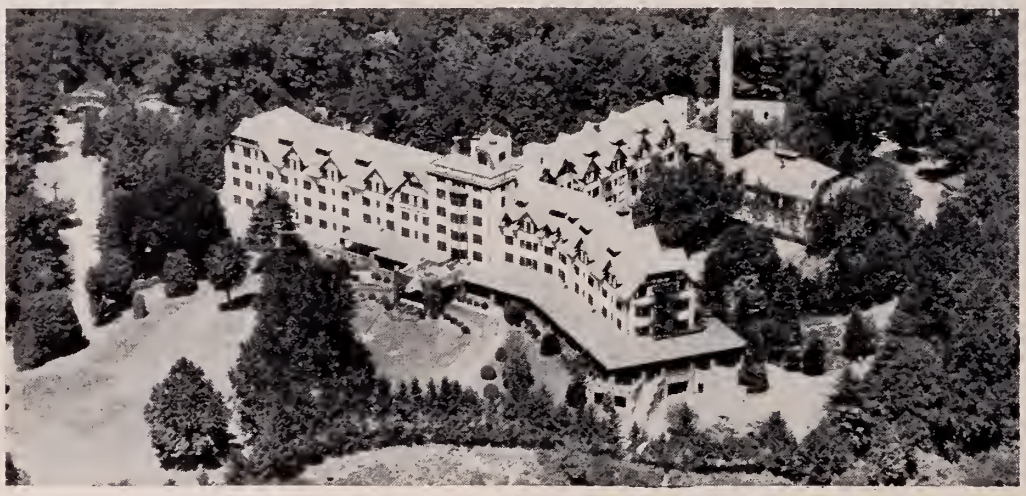
Alvin J. Ingram, M.D., 869 Madison Avenue, Memphis (1965)
Chas. C. Smeltzer, M.D., 521 W. Cumberland Avenue, Knoxville (1964)
Daugh W. Smith, M.D., 1926 Hayes Street, Nashville (1965)
Alternates:
Julian K. Welch, Jr., M.D., Brownsville (1965)
Wm. J. Sheridan, M.D., Medical Arts Building, Chattanooga (1964)
W. O. Vaughan, M.D., 2103 Hayes Street, Nashville (1965)

PRESIDENTS AND SECRETARIES OF COUNTY MEDICAL SOCIETIES, 1963-64

COUNTY	PRESIDENTS	SECRETARIES
Bedford County	Alfred Farrar, M.D., Shelbyville	W. L. Chambers, M.D., Gunter Building, Shelbyville
Benton-Humphreys County	John H. Overall, M.D., Camden	Hiram C. Capps, M.D., Waverly
Blount County	Homer L. Isbell, M.D., Med. Arts Bldg., Maryville	Oliver K. Agee, M.D., Arcade—Midland Center, Alcoa
Bradley County	Jas. C. Lowe, M.D., 755 Broad Street, N.W., Cleveland	James L. Allen, M.D., Calhoun
Campbell County	M. L. Davis, M.D., Lafollette	Roscoe C. Pryse, M.D., Lafollette
Chattanooga-Hamilton County	M. F. Langston, M.D., 103 Palisades Drive, Signal Mountain	C. Robert Clark, M.D., 210 Med. Arts Building Chattanooga Mrs. Flo Richardson, 109 Medical Arts Building, Chattanooga—Exec. Secy.
Cocke County	W. E. McGaha, M.D., 302 E. Main St., Newport	R. B. McMahan, M.D., 501 E. Main St., Newport
Coffee County	Edwin E. Gray, Jr., M.D., 108 W. Blackwell, Tullahoma	John A. Shields, M.D., Manchester
Consolidated Medical Assembly of West Tennessee	Eugene C. Crafton, M.D., Trenton	George B. Wyatt, M.D., 686 W. Forest Avenue, Jackson
Cumberland County	Arthur K. Husband, M.D., Crossville	Jas. T. Callis, M.D., Crossville
Nashville Academy of Medicine Davidson County	Walter L. Diveley, M.D., Medical Arts Building, Nashville	Tom E. Nesbitt, M.D., 1921 Hayes Street, Nashville Mr. Jack Drury, 112 Louise Avenue, Nashville—Executive Secretary
Dickson County	L. C. Jackson, M.D., Dickson	James T. Jackson, M.D., Dickson
Fentress County	Guy C. Pinkley, M.D., Jamestown	B. F. Allred, M.D., Jamestown
Franklin County	A. Reynolds Fite, M.D., Winchester	George L. Smith, M.D., Winchester
Giles County	J. U. Speer, M.D., 522 Jefferson, Pulaski	K. M. Kressenberg, M.D., 215 Cedar Lane, Pulaski
Greene County	W. L. McGuffin, M.D., 104 N. College, Greeneville	James R. McKinney, M.D., Takoma Hospital, Greeneville
Hamblen County	T. J. Hill, M.D., Citizens Bank, Rutledge	J. W. Richardson, M.D., 131 N. Daisy St., Morristown
Hawkins County	J. S. Lyons, M.D., 100 N. Church Street, Rogersville	Wm. H. Lyons, M.D., Rogersville
Henry County	Kenneth Ross, M.D., Paris Clinic, Paris	A. C. Dunlap, M.D., 302 Caldwell, Paris
Hickman-Perry County	Don L. Gaines, M.D., Hohenwald	Parker D. Elrod, M.D., Centerville
Jackson County	L. R. Dudney, M.D., Gainesboro	J. S. Johnson, M.D., Gainesboro
Knoxville Academy of Medicine	Richard C. Sexton, M.D., Blount Professional Bldg., Knoxville	Ray J. Leffler, M.D., East Tenn. Baptist Hospital, Knoxville
Lawrence County	Boyd P. Davidson, M.D., 369 Brink St., Lawrenceburg	James C. Hudgins, M.D., 200 S. Military, Lawrenceburg
Lincoln County	Paul E. Whittemore, M.D., 214 West College, Fayetteville	Anne U. Bolner, M.D., 204 N. Main, Fayetteville
Macon County	M. E. Painter, M.D., Lafayette	Jack C. Clark, M.D., Lafayette
Marshall County	J. W. Limbaugh, M.D., Med. Arts Bldg., Lewisburg	W. S. Poarch, M.D., Lewisburg
Maury County	William G. Fuqua, M.D., Hatcher Lane, Columbia	W. N. Jernigan, M.D., 209 W 8th Street, Columbia
McMinn County	Robert W. Trotter, M.D., Athens	James Cleveland, M.D., Englewood
Memphis-Shelby County	Gilbert J. Levy, M.D., 188 S. Bellevue, Memphis 4	R. A. Calandruccio, M.D., 869 Madison Ave., Memphis 3 Mr. Les Adams, 774 Adams Avenue, Memphis—Executive Secretary
Monroe County	R. C. Kimbrough, M.D., Madisonville	Jas. H. Barnes, M.D., Sweetwater
Montgomery County	Bryan T. Iglehart, M.D., 1724 Memorial Dr., Clarksville	F. C. Petty, M.D., Memorial Hospital, X-ray Dept., Madison St., Clarksville
Northwest Tennessee Academy of Medicine	R. David Taylor, M.D., Baird-Brewer Hosp., Dyersburg	W. I. Thornton, Jr., M.D., 402 Tickle St., Dyersburg
Overton County	H. B. Nevans, M.D., Livingston	W. G. Quarles, M.D., Livingston
Putnam County	J. T. DeBerry, M.D., 141 E. Broad St., Cookeville	Thurman Shipley, M.D., 135 W. 2nd St., Cookeville
Roane-Anderson County	Earl Eversole, Jr., M.D., Med. Arts Bldg., Oak Ridge	Robert DePersio, M.D., Med. Arts Bldg., Oak Ridge
Robertson County	W. P. Stone, M.D., 7th & Garner St., Springfield	Sue C. Atwood, M.D., 500 Main, Springfield
Rutherford County	B. S. Davison, M.D., 320 E. Main Street, Murfreesboro	Radford Smith, M.D., 420 N. University St., Murfreesboro
Scott County	H. M. Leeds, M.D., Oneida	Roy L. McDonald, M.D., Oneida
Sevier County	Robert A. Broady, M.D., Sevierville	John M. Hickey, Jr., M.D., Sevierville
Smith County	Hugh E. Green, M.D., Carthage	David G. Petty, M.D., Carthage
Sullivan-Johnson County	J. W. Erwin, M.D., Sullivan Co. Health Dept., Blountville	James G. McFaddin, M.D., 120 Blountville Highway, Bristol
Sumner County	Ira N. Kelley, M.D., Hartsville	Thomas F. Carter, M.D., Westmoreland
Tipton County	James S. Ruffin, M.D., Covington	Warren A. Alexander, M.D., Covington
Warren County	James L. Moore, M.D., Morford St., McMinnville	W. B. Bigbee, M.D., 202 Morford St., McMinnville
Washington-Carter-Unicoi County	Ben D. Hall, M.D., 115 W. Fairview Avenue, Johnson City	Gilbert Rannick, M.D., 107 W. Fairview Ave., Johnson City
Weakley County	Nathan F. Porter, M.D., Greenfield	E. T. Frank, M.D., Greenfield
White County	W. H. Anderson, M.D., Sparta	Robert F. Baker, M.D., 233 E. Broadway, Sparta
Williamson County	Adolphus Bray, M.D., Franklin	Joseph L. Willoughby, M.D., Franklin
Wilson County	James C. Bradshaw, Jr., M.D., McFarland Hospital, Lebanon	T. R. Puryear, M.D., 239 E. Main, Lebanon

APPALACHIAN HALL
Established 1916

Asheville North Carolina



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

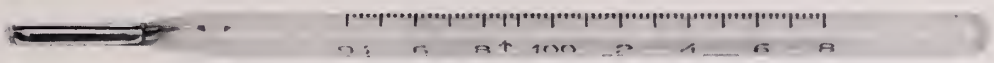
WM. RAY GRIFFIN, JR., M.D. MARK A. GRIFFIN, SR., M.D.
ROBERT A. GRIFFIN, M.D. MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

Abbott Laboratories	XXII, XXIII	Mayrand, Inc., Pharmaceuticals	X
American Cyanamid Co.	XI. XXXVI. XXXVII	Mutual Benefit Life Ins. Co.	XXXV
American Tobacco Co.	XIX	Nashville Surgical Supply Co., Inc.	XXXIX
Ames Co., Inc.	XLVII	Parke-Davis and Company	II, III
Appalachian Hall	XLVI	Phillips, Chas H. Co., The	XV
Arnar-Stone Laboratories, Inc.	VII	Physicians Mutual Ins. Co.	XL
Birtcher Medical Electronics	XXVIII	Poythress, Wm. P. & Co.	VIII, XXXIII
Blood Bank Foundation	XLIII	Roche Laboratories	XLVIII
Brawner Hospital, Inc.	XXIV	St. Albans	XXXVIII
Brayten Pharmaceutical Company	XXVII	Sardeau, Inc.	XVI
Burroughs Wellcome & Co.	XXIV	Schering	XXIX
City View Sanitarium	XL	Searle, G. D. & Co.	XXXI
Coca-Cola	XXXII	Smith, Kline & French Laboratories	XIV
Endo Laboratories	IX	Smith, Reed, Thompson & Ellis Co.	XLII
Farringer & Company	XXVI	Sovereign States Ins. Co.	XLI
First Texas Pharmaceuticals, Inc.	XVIII	Squibb	XXV
General Practitioner Wanted	XXXII	Tafel Surgical Supply Co., Inc.	XL
Guild Opticians	XXXIV	Today's Health	XXIV
Highland Hospital, Inc.	XXXIV	Wallace Laboratories	VI, XII, XIII, XX, XXI
Hill Crest Sanitarium	XXVIII	White Surgical Supply Co.	XXXII
Kay Surgical, Inc.	XLIII	Winthrop Laboratories	V, XXII
Lily, Eli and Co.	I, XXX		

one answer... three minutes





three answers ...ten seconds

DIP AND READ

combistix®

urine protein • glucose • pH

BASIC COMBINATION TEST FOR BEDSIDE AND OFFICE

... faster than taking temperature. Detects glucosuria (as in diabetes), proteinuria (as in renal disorder), abnormal pH (as in calcinosis or GU infection). For routine screening of all patients.
COMBISTIX—*basic as the stethoscope.*
AMES products are available through your regular supplier. 38263

AMES
COMPANY INC
Elkhart • Indiana
Toronto • Canada



Formerly nervous and tense, now better able to...

enjoy her family

This, in essence, is what happens when you place a patient on Librium (chlordiazepoxide HCl). Since this agent generally relieves anxiety and tension without dulling mental clarity or inducing drowsiness, most patients become better able to function normally, take an active interest in family and surroundings, meet and solve daily problems. This antianxiety agent is virtually free from extrapyramidal side effects, and does not produce or deepen depression.

DOSAGE: **Oral**—Usual adult dose in mild to moderate anxiety and tension is 5 or 10 mg, 3 or 4 times daily; in severe anxiety and tension, 20 or 25 mg, 3 or 4 times daily. **Parenteral**—To control acute conditions, the usual initial adult dose is 50 to 100 mg I.M. or I.V.; not more than 300 mg should be given during a 6-hour period. ☐ SIDE EFFECTS: **Oral**—Drowsiness and ataxia, usually dose-related, have been reported in some patients—particularly the elderly and debilitated. Paradoxical reactions, i.e., excitement, stimulation, elevation of affect and acute rage, have been reported in psychiatric patients; these reactions may be secondary to relief of anxiety and should be watched for in the early stages of therapy. Other infrequent dose-related side effects have included isolated instances of minor skin rashes, minor menstrual irregularities, nausea, constipation, increased and decreased libido. **Parenteral**—Following parenteral administration some patients may become drowsy or unsteady. The injectable form has occasionally produced mild, transitory fluctuations of blood pressure. ☐ PRECAUTIONS: **Oral**—In elderly, debilitated patients, limit dosage to smallest effective amount to preclude development of ataxia or oversedation (not more than 10 mg per day initially, to be increased gradually as needed and tolerated). Until the correct maintenance dosage is established, patients receiving this agent should be advised against possibly hazardous procedures requiring complete mental alertness or physical coordination. Although this agent is a valuable aid in acute and chronic alcoholism, caution patients about possible combined effects with alcohol. Caution should be exercised in administering it to addiction-prone individuals. Careful consideration should be given to the pharmacology of any agents to be employed with Librium (chlordiazepoxide HCl)—particularly the MAO inhibitors and phenothiazines. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests may be advisable in protracted treatment. **Parenteral**—Parenteral administration is indicated primarily in acute states, and patients receiving this form of therapy should be kept under observation, preferably in bed, for a period of up to three hours. Ambulatory patients should not be permitted to operate a vehicle following injection. The usual precautions of reduced dosage should be observed when treating patients with impaired renal or hepatic function. The injectable form should not be given to patients in shock or comatose states. Reduced dosage (usually 25 to 50 mg) should be used for elderly or debilitated patients, and for children.

Anxiety and tension relieved
Alertness maintained

Librium®
(chlordiazepoxide HCl)

the successor
to the tranquilizers

ROCHE
ROCHE

THE JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION

TENNESSEE VALLEY MEDICAL ASSEMBLY
Read House, Chattanooga, Tennessee
September 30 and October 1, 1963

JUNE, 1963

Volume 56 **Number 6**

of Contents on Page IV
o Advertisers on Page XL

Simple diarrhea?

Control it with
safe / effective / economical / pleasant-tasting

Quintess®

(attapulgite compound, Lilly)

Available in 6-ounce plastic and 1-pint glass bottles.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

362030



whatever the shape or form of allergy...

Benadryl®

(Diphenhydramine hydrochloride)

effectively relieves the symptoms of vasomoto rhinitis For patients sensitive to animal danders, this age provides twofold therapeutic action to help abort an allerg attack. **Antihistaminic action:** A potent antihistaminic, breaks the cycle of allergic response, bringing relief of snee



lacrimation, nasal blockage, and rhinorrhea. **Antispasdic action:** Because of its inherent atropine-like perties, the drug affords concurrent relief of bronchial m. ***Indications:*** Allergic diseases such as hay fever, gic rhinitis, urticaria, angioedema, bronchial asthma, m sickness, atopic dermatitis, contact dermatitis, gastrotinal allergy, vasomotor rhinitis, pruritus, physical aller- reactions to injection of contrast media, reactions to apeutic preparations, and allergic transfusion reactions; postoperative nausea and vomiting, nausea of pregcy, motion sickness, parkinsonism and drug-induced apyramidal reactions, and quieting emotionally disturbed dren. Parenteral administration is indicated where, in the ment of the physician, prompt action is necessary and therapy would be inadequate. ***Precautions:*** Avoid utaneous or perivascular injection. Single parenteral dosgreater than 100 mg. should be avoided, particularly in hypertension and cardiac disease. Persons who have become drowsy on this or other antihistamine-containing drugs, or whose tolerance is not known, should not drive vehicles or engage in other activities requiring keen response while using this product. Hypnotics, sedatives, or tranquilizers, if used with this product, should be prescribed with caution because of possible additive effect. Diphenhydramine hydrochloride has an atropine-like action which should be considered when prescribing it. Cream (Ointment) should not be applied to extensively denuded or weeping skin areas. ***Supplied:*** Kapseals® of 50 mg.; Capsules of 25 mg.; Emplets® (enteric-coated tablets) of 50 mg.; in aqueous solutions: 1-cc. Ampoules, 50 mg. per cc.; 10- and 30-cc. Steri-Vials,® 10 mg. per cc. with 1:10,000 benzethonium chloride as a germicidal agent; Elixir, 10 mg. per 4 cc. with 14 per cent alcohol; 2 per cent Ointment (water-miscible base).

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

14563

The Journal of the TENNESSEE MEDICAL ASSOCIATION

Published Monthly

By Tennessee Medical Association

OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE

Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 6

JUNE, 1963

Per Year, $5.00
Single Copy, 50 Cents

Published Monthly

Contents

Abstract of the Proceedings of the House of Delegates of the Tennessee Medical Association, Knoxville—April 7-9, 1963 201

A Report to the House of Delegates and the Membership 211

Abstract of Minutes of Council Meeting, Tennessee Medical Association, Andrew Johnson Hotel —Knoxville—April 7-9, 1963 247

Abstract of Minutes of the Second Quarter Meeting of the Board of Trustees, Tennessee Medical Association, Andrew Johnson Hotel—Knoxville, Wednesday, April 10, 1963 248

President's Letter 252

Editorial 253

Deaths 255

Programs and News of Medical Societies 255

National News 256

Medical News in Tennessee 257

Personal News 261

Announcements 261

Constitution and By-Laws 263

TMA Standing Committees 273

Officers of the TMA 274

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 12, Tennessee.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
R. H. KAMPMEIER, M.D., Editor
This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein
Copyright, 1963, by the Tennessee Medical Journal



For dramatic restoration

WINSTROL®

brand of STANOZOLOL

Oral anabolic therapy with this new physiotonic helps restore the patient's: positive protein metabolism; confidence, alertness and sense of well-being.

WINSTROL (stanozolol/Winthrop), a heterocyclic steroid, combines highest potency* with outstanding tolerance, stimulates appetite and promotes weight gain . . . restores a positive metabolic balance. It counteracts the catabolic effects of concomitant corticosteroid or ACTH therapy. WINSTROL (stanozolol/Winthrop) rebuilds body tissue while it builds strength, confidence and a sense of well-being in conditions associated with excess protein breakdown, insufficient protein intake and inadequate nitrogen and mineral retention.

Side Effects and Precautions: Prolonged administration can produce mild hirsutism, acne or voice change. In an occasional patient, edema has been observed and in young women the menstrual periods have been milder and shorter. These side effects are reversible, and patients receiving prolonged treatment should be examined and questioned periodically so that, should side effects appear, the dosage may be reduced or administration of the drug discontinued for a time.

In patients with impaired cardiac and renal function, there is the possibility of sodium and water retention. Liver function tests may reveal an increase in bromsulphalein retention, particularly in elderly patients. In such cases, therapy should be discontinued. Although it has been used in patients with cancer of the prostate, its mild androgenic activity is considered by some investigators to be a contraindication.

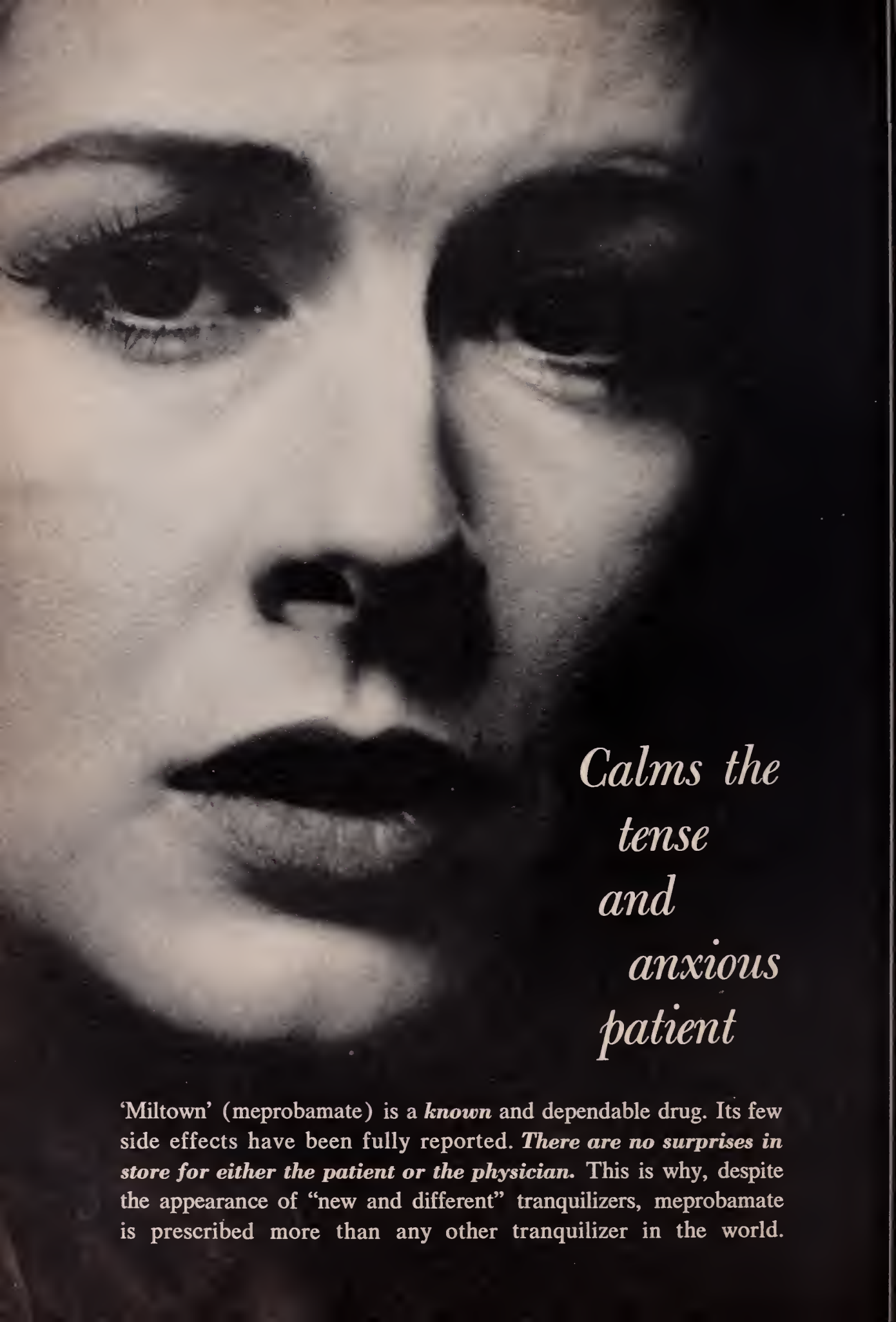
Dosage: Usual adult dose, 1 tablet t.i.d. before or with meals; young women, 1 tablet b.i.d.; children (school age): up to 1 tablet t.i.d.; children (preschool age): ½ tablet b.i.d. Available as scored tablets of 2 mg. in bottles of 100. For best results, administer with a high protein diet.

*ANIMAL DATA

Rx WINSTROL (stanozolol/Winthrop) whenever anabolic therapy is indicated

Winthrop

Winthrop Laboratories, New York 18, New York



'Miltown' (meprobamate) is a ***known*** and dependable drug. Its few side effects have been fully reported. ***There are no surprises in store for either the patient or the physician.*** This is why, despite the appearance of "new and different" tranquilizers, meprobamate is prescribed more than any other tranquilizer in the world.

Clinically Proven

in more than 750 published clinical studies and over eight years of clinical use

Outstanding Record of Effectiveness and Safety

1. Relieves anxiety and anxious depression in a broad spectrum of clinical conditions.
2. Doesn't leave patients "too groggy" to work or think or learn.
3. Relaxes both mind and skeletal muscle. Relieves physical tension as well as emotional stress.

Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Massive overdosage may produce coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.
Usual dosage: 1 or 2 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50.

the original meprobamate

Miltown®

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-9235

Solfoton®

for mild, continuous sedation

Each tablet (or capsule) contains 16 mg. phenobarbital blended with 65 mg. Bensulfoid®. The Bensulfoid is an inert diluent present to permit slow absorption of the phenobarbital. The usual dosage is one tablet or capsule after meals and at bedtime. Solfoton is especially adapted to prolonged use because of its virtual freedom from depression and other side effects. Contra-indications: identical to those of ¼ gr. phenobarbital.

REFER TO PDR

Poythress, White Section, Page 808 (1963 edition) and Product Identification Section

COMPLETE INFORMATION AND CLINICAL SAMPLES SENT UPON REQUEST

Dispensed in bottles of 100 and 500 tablets or capsules

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

Manufacturers of ethical pharmaceuticals since 1856

MEAN INCREASE OF 80% IN CORONARY BLOOD FLOW*

For your
angina patients
continuous protection
all day,
all night

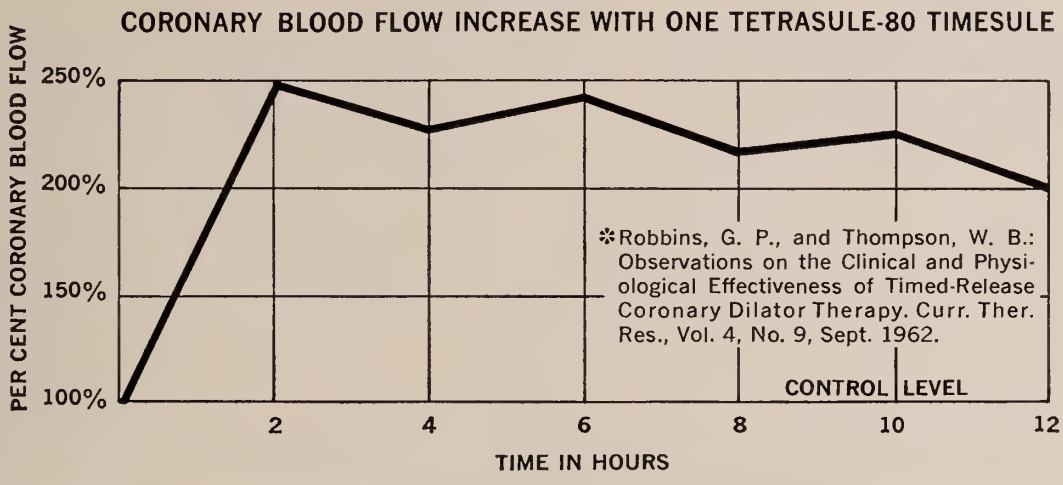


Tetrasule®

Pentaerythritol Tetranitrate, Arnar-Stone

Therapy with TETRASULE TIMESULES®, Timed-release capsules:

dilates coronary arteries → increases coronary blood flow → helps nourish oxygen-deficient myocardium → minimizes frequency of attacks and reduces their severity should they occur → reduces nitroglycerine requirements



With a Tetrasule Timesule, release of PETN is timed-phased over 12 hours and matches PETN need. The pellets are distributed throughout the G-I tract, and release is independent of enzymatic activity or motility. Thus, constant availability of PETN—no peaks or valleys—is assured.

B.i.d. dosage of Tetrasule Timesules provides continuous protection—all day, all night—including the critical early A.M. hours. This 12-hour protection was confirmed by a recent study of Robbins and Thompson , as demonstrated in the above chart.

SUPPLIED: Tetrasule, 30 mg. PETN; Tetrasule-S, 30 mg. PETN and 30 mg. Amobarbital (warning, may be habit-forming); Tetrasule-80, 80 mg. PETN.

CAUTION: Federal law prohibits dispensing without prescription. Use with caution in glaucoma and severe anemia.

For reprints of the above study or a clinical supply write to:

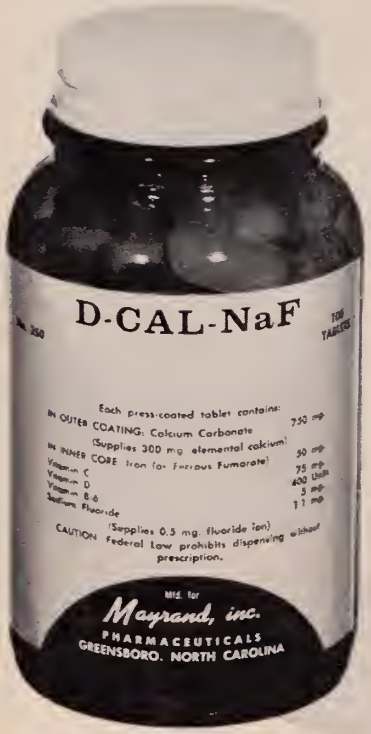
ARNAR-STONE Laboratories, Inc.
STORCK PHARMACEUTICALS DIVISION
Mount Prospect, Illinois

New--from *Mayrand*

D-CAL-NaF

BASIC SUPPLEMENT

plus FLUORIDE



Here is a phosphorus-free CALCIUM for immediate conversion and rapid assimilation; non-irritating, non-constipating IRON; and **only** those other nutrients needed to meet increased demands during pregnancy—Vitamins D, C and B-6.

Since tooth buds begin to form about the 6th week of pre-natal life, here is FLUORIDE for the future caries control of both mother and child.

Here is D-CAL-NaF — a sensible, moderate-cost formulation. ABOUT FOUR BOTTLES WILL PROTECT MOTHER AND FETUS DURING FULL TERM.

Each tablet Contains:

IN OUTER COATING:
Calcium Carbonate ..... 750 mg.
(Supplies 300 mg. of elemental Calcium)

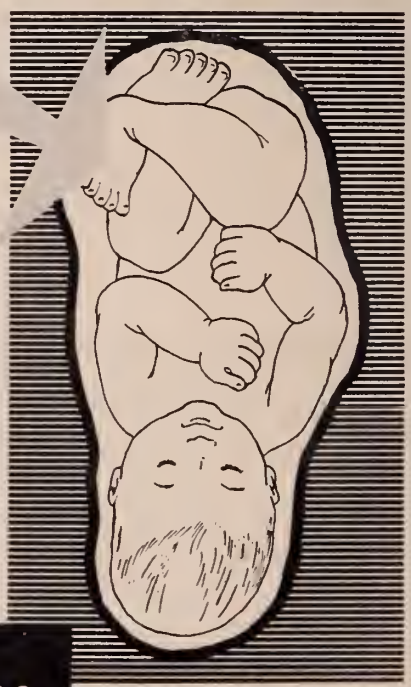
IN INNER CORE:
Iron (As Ferrous Fumarate) ..... 50 mg.
Vitamin D ..... 400 Units
Vitamin C ..... 75 mg.
Vitamin B-6 ..... 5 mg.
Sodium Fluoride ..... 1.1 mg.
(Supplies 0.5 mg. fluoride ion)

CONTRAINDICATED: Where natural or added fluoride in water exceeds 0.7 ppm. except on advice of physician.

SUPPLIED: BOTTLES OF 100 TABLETS —

References:

1. Feltman, R., and Kossel, G.: Prenatal Ingestion of Fluorides and their Transfer to the Fetus. Science 122:560-561 (Sept. 23) 1955.
2. Nutritional Reviews 17:267-268 (Sept.) 1959.
3. Council on Dental Therapeutics "Prescribing Supplements of Dietary Fluorides", J.A.D.A. 56:589-591, April 1958.
4. Hall, E. W., "The Family Doctor and Preventive Dentistry", G.P., XXII:6, December 1960. pp 109-111.



Mayrand, Inc. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA

SAMPLES AND COMPLETE DOSAGE INFORMATION ON REQUEST.



after surgery: vitamins are therapy

Nutritional supplementation is basic to postoperative care. Therapeutic allowances of B and C vitamins help meet increased metabolic requirements and compensate for stress depletion. STRESSCAPS can set the patient on a more favorable course and contribute to full recovery.

FOR PROFESSIONAL

RECOMMENDATION ONLY

Each capsule contains: Vitamin B_1 (Thiamine Mononitrate)...10 mg. / Vitamin B_2 (Riboflavin)...10 mg. / Niacinamide... 00 mg. / Vitamin C (Ascorbic Acid)...300 mg. / Vitamin B_6 (Pyridoxine HCl)...2 mg. / Vitamin B_{12} Crystalline... mcgm. / Calcium Pantothenate...20 mg. Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin eficiencies. Supplied in decorative "reminder" jars of 30 and 100.

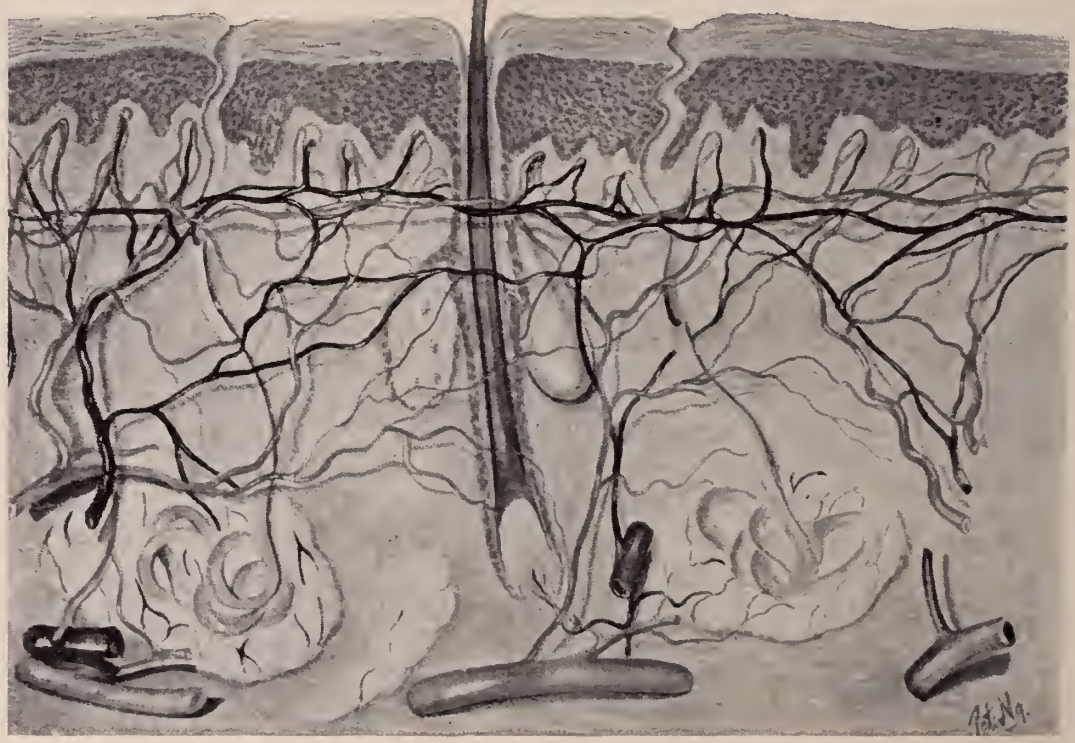
Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

6316-3

STRESSCAPS®

Stress Formula Vitamins Lederle

JUDGE ANTIBIOTIC OINTMENTS HERE



Results on skin are final proof of any topical antibiotic's effectiveness

No in vitro test can duplicate a clinical situation on living skin. 'Neosporin' (polymyxin B—bacitracin—neomycin) Antibiotic Ointment has consistently proven its effectiveness in thousands of cases of bacterial skin infection. The spectra of the three antibiotics overlap in such a way as to provide bactericidal action against most pathogenic bacteria likely to be found topically. Diffusion of the antibiotics from the special petrolatum base is rapid since they are insoluble in the petrolatum, but readily soluble in tissue fluids. The Ointment is bland and rarely sensitizes.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs.

Supplied: Tubes of 1 oz., ½ oz. with applicator tip, and ⅛ oz. with ophthalmic tip.

Complete literature available on request from Professional Services Dept. PML.

'NEOSPORIN'®
brand

POLYMYXIN B-BACITRACIN-NEOMYCIN ANTIBIOTIC OINTMENT

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

Get your low-back patient back to work in days instead of weeks



You can expect rapid results from 'Soma' (carisoprodol)—because this unique drug breaks up both the spasm and pain of low-back syndrome at the same time.

Your patients will usually begin to feel better within a few hours. And as Kestler demonstrated in a controlled study of 212 consecutive patients with low-back problems: the average time for full recovery was only 11.5 days with 'Soma' (carisoprodol), 41 days without it. (J.A.M.A., April, 1960.)

Carisoprodol seldom produces side effects. Occasional drowsiness may occur, usually at higher than recommended dosage. Individual reactions may occur rarely.

USUAL DOSAGE: ONE 350 MG. TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

Soma®
carisoprodol

Wallace Laboratories
Cranbury, New Jersey

there is nothing "new" about Thorazine®



brand of

chlorpromazine

In the nine years since it became available to American physicians, Thorazine (chlorpromazine, SK&F) has been more widely used, more thoroughly investigated and more extensively documented than any other agent of its type.

Its actions, effects—and side effects—are well known throughout the medical profession. Its efficacy has been clearly demonstrated. And when properly used, its advantages far outweigh any possible disadvantages.

This is why there is nothing "new" about Thorazine (chlorpromazine, SK&F). This is why it remains the first choice in many conditions—and the standard against which other agents are inevitably compared.

This is why it is one of the fundamental drugs in medicine.

SMITH KLINE & FRENCH
LABORATORIES, PHILADELPHIA

SK&F

Question:

"What is a tranquilaxant?"

Answer:

"A drug that is both a tranquilizer and a muscle relaxant."

TRANCOPAL®
brand of
chlormezanone
is a tranquilaxant

As a tranquilizer, TRANCOPAL (chlormezanone/Winthrop) "is effective in the symptomatic treatment of anxiety."[1] Its tranquilizing properties are similar to those of other mild tranquilizers.[1] Furthermore, it relieves tension of both mind and muscle without interfering with normal activity or alertness.

The muscle relaxant properties[2] of this drug provide an extra dimension of effectiveness... relaxing the spasm which so frequently accompanies psychogenic disorders. Hence, the total therapeutic effect of TRANCOPAL (chlormezanone/Winthrop)—a true "tranquilaxant"—is to produce a relaxed mind in a relaxed body.

Unsurpassed Tolerance: Less than 3 per cent of patients develop side effects with TRANCOPAL (chlormezanone/Winthrop), such as occasional drowsiness, dizziness, flushing, nausea, depression, weakness and drug rash. If severe, medication should be discontinued. In most patients, however, side effects are minor and do not necessitate interruption of treatment. There are no known contraindications.

Available: 200 mg. Caplets® (green colored, scored), 100 mg. Caplets (peach colored, scored), each in bottles of 100.

Dosage: Adults, 1 Caplet (200 mg.) three or four times daily; in some patients 100 mg. three or four times daily suffices. Children (5 to 12 years), from 50 to 100 mg. three or four times daily.

Winthrop
WINTHROP LABORATORIES
New York 18, N.Y.

References: 1. A.M.A. Council on Drugs: J.A.M.A. 183:469 (Feb. 9) 1963. 2. Gruenberg, F.: Curr. Ther. Res. 2:1 (Jan.) 1960.

1781M



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS** and **SYMPTOMS**: Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS**: Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT**: Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN
1104 Sudekum Bldg.
Nashville, Tenn.

SETH W. SIZER
1211 James Bldg.
Chattanooga, Tenn.

THERON M. LEMLY
1309 Poplar Ave.
Memphis, Tenn.

New from SAUNDERS

Three New Editions

New (11th) Edition!
Beeson & McDermott—Cecil-Loeb
TEXTBOOK OF MEDICINE

A new and distinguished team of Editors guides this well-known textbook in its *New (11th) Edition.* Its basic philosophy is to provide precise and thorough descriptions of those disease entities you are likely to encounter. Each is discussed fully and completely: *etiology, epidemiology; morbid anatomy; pathologic physiology; symptoms; diagnosis; prognosis; therapy.* Contents range from a commentary on *Patient-Physician Communication* to *Management of Bronchopulmonary Insufficiency.* In this revision you'll find increased emphasis on pathologic physiology; a new section on *Genetic Disease;* expansion of the material on *Viral Diseases;* reorganization and augmentation of sections on *Bronchopulmonary Disease* and *Gastroenterology;* a brilliant discussion of *Nucleic Acids, Genes, Viruses, and Immunity;* 67 new contributors. *The text is available either as a single volume or a two-volume set.*

Edited by PAUL B. BEESON, M.D., Ensign Professor of Medicine, Yale University School of Medicine; and WALSH MCDERMOTT, M.D., Livingston Farrand Professor of Public Health, Cornell University Medical College. With contributions by 173 authorities. With the assistance of 5 Associate Editors. About 1822 pages, 7⅜" x 10¾", with about 238 illustrations. Single Volume About $19.50. Two-Volume set About $23.50.

New (11th) Edition—Ready June!

New (2nd) Edition!
Aegerter and Kirkpatrick—
ORTHOPEDIC DISEASES

Dr. Aegerter, a pathologist, and Dr. Kirkpatrick, a radiologist, examine bone disease from the standpoint of its altered morphology and physiology—and then interpret the alterations in terms of symptomatology and roentgenology. For each skeletal disease (ranging from *Achondroplasia* to *Villonodular Pigmented Synovitis)* the authors describe: clinical manifestations; radiographic and laboratory findings; prognosis. For this up-to-date *New (2nd) Edition* there is considerably more material on radiographic demonstration of bone lesions and much greater emphasis on bone diseases and lesions of children. There are few other sources in which all the basic aspects of bone and joint disease are so well illuminated. Its conciseness is such that the general practitioner can gain a better understanding of the complex aspects of arthritis and bone diseases without sifting masses of material.

By ERNEST AEGERTER, M.D., Professor of Pathology and Director of the Department of Pathology, Temple University Medical Center and School of Medicine; Professor of Orthopedic Pathology, University of Pennsylvania Graduate School of Medicine; Chief in Pathology, Philadelphia General Hospital; and JOHN A. KIRKPATRICK, Jr., M.D., Radiologist, St. Christopher's Hospital for Children; Associate Professor of Radiology (Pediatrics), Temple University School of Medicine; Radiologist, Children's Heart Hospital. About 800 pages, 6½" x 9¾", with about 541 illustrations. About $16.00.

New (2nd) Edition—Ready June!

New (5th) Edition!
Andrews and Domonkos—
DISEASES OF THE SKIN

You'll find a concise, practical approach to clinical recognition and therapy of skin diseases in this *New (5th) Edition*—soundly based on modern histopathology. Virtually every dermatologic disease commonly encountered in practice is discussed—*eczema, hives, acne, impetigo, athlete's foot, pruritis, cutaneous neurosis,* etc. Anatomy, physiology, etiology and pathology of the skin and its disorders are meticulously discussed. Indications for surgical treatment are pointed out and techniques for biopsy and electrosurgery are fully described. A major feature of the *New (5th) Edition* is the inclusion of 175 new, brilliantly clear photographs of skin lesions to aid you in recognition. Many significant new entities have been added. All of the chapters are completely revised. The uses and possible hazards of newer drugs such as *amphotericin B, Norethynodrel, corticosteroids, micronized griseofulvin,* are described. There is full coverage of the connective tissue (Collagen) diseases and a description of newly recognized diseases of the reticuloendothelial system.

By GEORGE C. ANDREWS, M.D., Clinical Professor of Dermatology (Ret.) and ANTHONY DOMONKOS, M.S., Assistant Clinical Professor of Dermatology, College of Physicians and Surgeons, Columbia University. About 752 pages, 7" x 10", with about 596 illustrations. About $18.00.

New (5th) Edition—Ready June!

To Order Mail Coupon Below!

W. B. SAUNDERS COMPANY
West Washington Square Philadelphia 5

Please send and bill me:

☐ Beeson & McDermott—
Cecil-Loeb *Textbook of Medicine*....About $19.50
☐ 2 vol. set.....About $23.50

☐ Andrews & Domonkos—
Diseases of the Skin.....About $18.00

☐ Aegerter & Kirkpatrick—
Orthopedic Diseases.....About $16.00

Name.....

Address.....

SJG 6-63

SAINT ALBANS

PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

STAFF

James P. King, M.D., Director

Daniel D. Chiles, M.D.
Clinical Director

James K. Morrow, M.D.

Silas R. Beatty, M.D.

William D. Keck, M.D.

Edward W. Gamble, III, M D

J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.

Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: DAvenport 5-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Phone: CLifford 3-8397

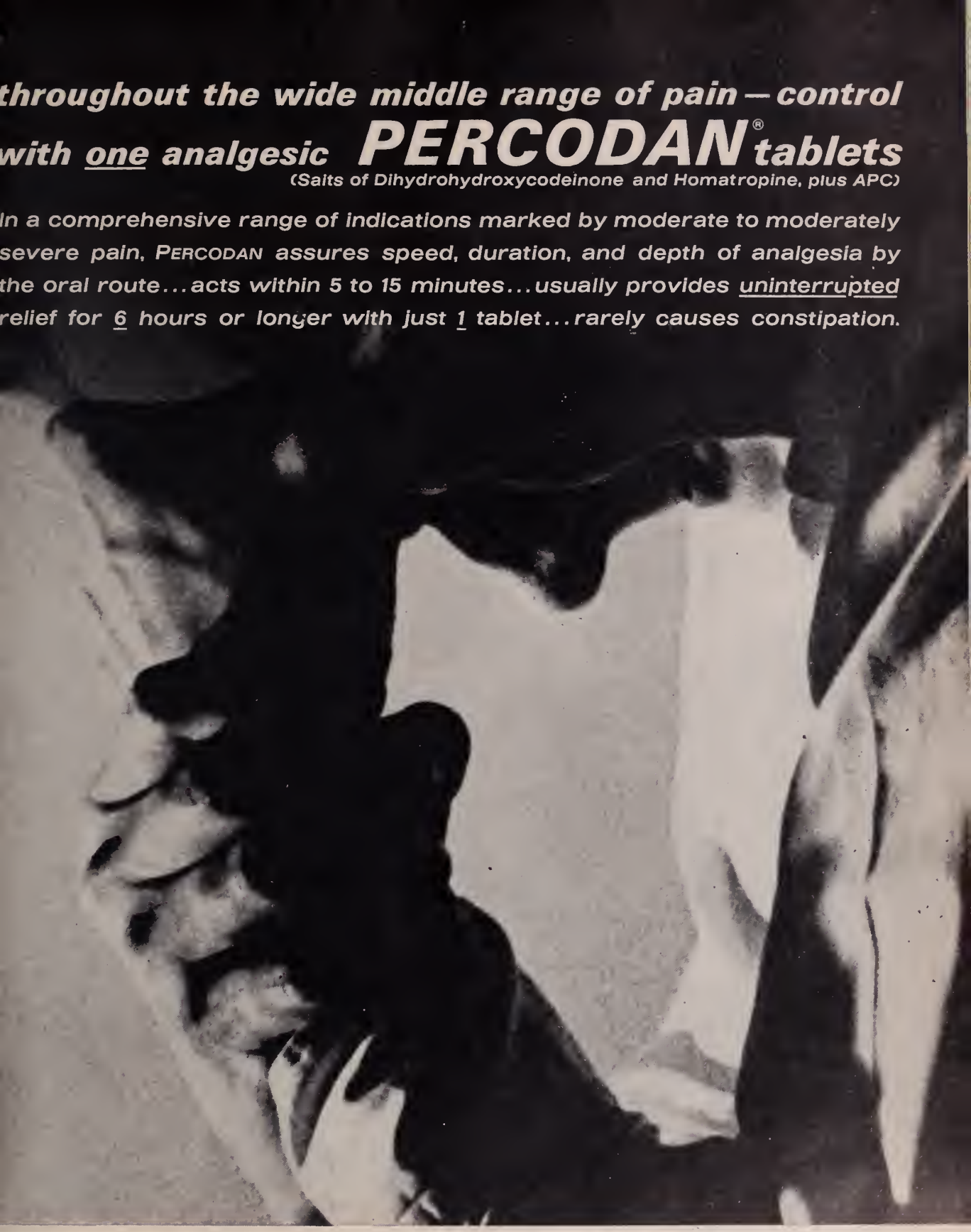
Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
B. B. Young, M.D.
Phone: DIckens 6-7691

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 218, Ext. 55 and 56

throughout the wide middle range of pain — control with one analgesic **PERCODAN®** tablets

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC)

In a comprehensive range of indications marked by moderate to moderately severe pain, PERCODAN assures speed, duration, and depth of analgesia by the oral route... acts within 5 to 15 minutes... usually provides uninterrupted relief for 6 hours or longer with just 1 tablet... rarely causes constipation.



Formula — Each scored yellow PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl (Warning: May be habit-forming), 0.38 dihydrohydroxycodeinone terephthalate (Warning: May be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine. **Also available:** PERCODAN®-DEMI, containing the complete PERCODAN formula but with only half the amount of salts of dihydrohydroxycodeinone and homatropine. Both products are on oral Rx in all states where laws permit. **Average Adult Dose**—1 tablet every 6 hours. **Side Effects and Contraindications**—Although generally well tolerated, PERCODAN may cause nausea, emesis, or constipation in some patients. PERCODAN should be used with caution in patients with known idiosyncrasies to acetylsalicylic acid or acetophenetidin and in those with blood dyscrasias. *Literature on request.*

ENDO LABORATORIES Richmond Hill 18, New York

Endo®

*U.S. Pats. 2,628,185 and 2,907,768

Lifts depression...



"I feel like my old self again!" Thanks to your balanced therapy with 'Deprol', her depression has lifted and her mood has brightened – while her anxiety and tension have been calmed. She sleeps better, eats better, and normal drive and interest have replaced her emotional fatigue.

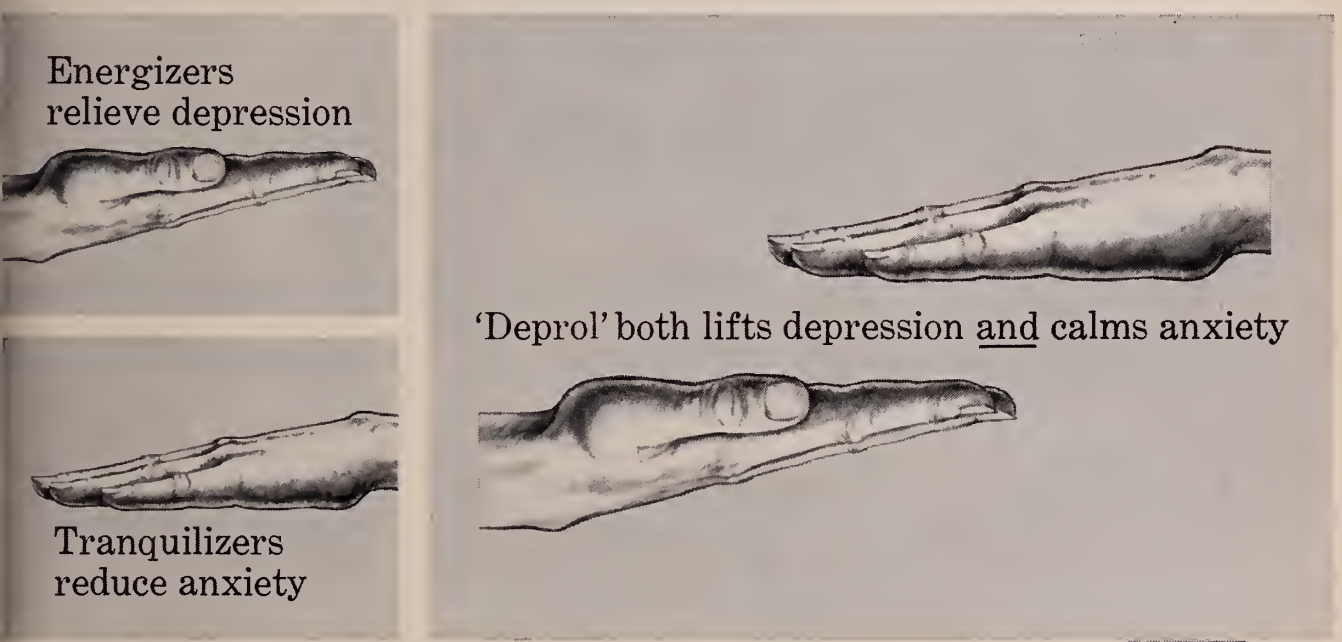
as it calms anxiety

Brightens mood...relaxes tension

Energizers may stimulate the depressed patient, but they often aggravate anxiety and insomnia. Tranquilizers may help the anxious patient, but they often deepen depression and emotional fatigue.

'Deprol' avoids these "seesaw" effects; it relieves both depression and anxiety. Moreover, it does not cause liver damage, psychotic reactions or changes in sexual function.

Slight drowsiness and, rarely, allergic reactions, due to meprobamate, and occasional dizziness or feeling of depersonalization in higher dosage, due to benactyzine, may occur. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.



Usual Dosage: 1 tablet q.i.d. May be increased gradually, as needed, to 3 tablets q.i.d.; with establishment of relief, may be reduced gradually to maintenance levels.

▲Deprol▲®

meprobamate 400 mg.
+ benactyzine 1 mg.

WALLACE LABORATORIES / *Cranbury, N.J.*

CD-9250

Tennessee Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

Underwritten By

Commercial Insurance Company

Newark, New Jersey

For the Patient Over 50 with Digestive Distress

KANUMODIC®

Each tablet contains methscopolamine nitrate, 2 mg.; and pentobarbital (Warning: May be habit-forming), 8 mg.; plus KANULASE® (cellulase standardized to 9 mg.; combined with pepsin, N.F., 150 mg.; glutamic acid hydrochloride, 200 mg.; pancreatin, N.F., 500 mg.; ox bile extract, 100 mg.).

TESTED—PROVED

Table I—Symptomatic Relief in 25 Patients
(totalling 100 symptoms)

	COMPLETE RELIEF	PARTIAL RELIEF	NO RELIEF	TOTAL SYMPTOMS
KANUMODIC	59	17	24	100
PLACEBO	1	33	61	95

In a second study, Kanumodic produced "highly gratifying symptomatic relief" in 46 of the 60 patients participating.

Tested in patients over 50*. . . The effectiveness of Kanumodic was matched against placebo response in a study involving twenty-five "over 50 patients" suffering from functional bowel distress. All patients complained of one or more symptoms. A follow-up study of 60 additional cases (average age, 55.3 years) was also conducted.

Proved in patients over 50* . . . The response noted in the pilot study is charted above.

*McHardy, G., and Balart, L.: Curr. Ther. Res. *4*:153, 1962.

Dosage: 1 or 2 tablets, swallowed whole with each meal.

Cautions: Federal law prohibits dispensing without prescription. Side effects such as dryness of mouth, blurring of vision, and urinary retention may occur occasionally with large doses. This product is contraindicated in the presence of glaucoma or prostatic hypertrophy. Glutamic acid hydrochloride is usually not given to patients with peptic ulcer.

DORSEY LABORATORIES • Lincoln, Nebraska

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply & Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601

PAPAIN IS THE KEY

to complete, thorough vaginal cleansing

Meta Cine®

mucolytic, acidifying, physiologic vaginal douche

The papain content of Meta Cine is the key reason why it effects such complete cleansing of the vaginal vault. Papain is a *natural* digestant, and is capable of rendering soluble from 200-300 times its weight of coagulated egg albumin. In the vagina, papain serves to dissolve mucus plugs and coagulum.

Meta Cine also contains lactose—to promote growth of desirable Doderlein bacilli—and methyl salicylate, eucalyptol, menthol and chlorothymol, to stimulate both circulation and normal protective vaginal secretions. Meta Cine's pleasant, deodorizing, *non-medicinal* fragrance will meet your patients' esthetic demands.

Supplied in 4 oz. and 8 oz. containers, and in boxes of 30 individual-dose packets. Dosage: 2 teaspoonfuls, or contents of 1 packet, in 2 quarts of warm water.



BRAYTEN

BRAYTEN PHARMACEUTICAL COMPANY *Chattanooga 9, Tennessee*





Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James K. Ward, M.D.
Phones WOrth 1-1151

ß

BIRTCHER MEDICAL ELECTRONICS

CARDIOLOGY Electrocardiograph · Cardioscope · Heartpacer® · Defibrillator · Mobile Cardiac Monitoring & Resuscitation Center

ELECTROSURGERY The Blendtone · Hyfrecator® · Electrosectilis®

PHYSICAL THERAPY Ultrasonics · Shortwave Diathermy · Ultraviolet · Infrared · Muscle Stimulators · Hydrotherapy



FREE 96-PAGE BOOK — JUST PUBLISHED
THE LATEST ON CLINICAL ULTRASONICS

I have a supply of the just-published "Proceedings" of the last meeting of the American Institute of Ultrasonics in Medicine. I will be happy to send you a copy...no obligation, of course. Write or call me.

HOWARD JENNINGS
P.O. Box 9039, Knoxville, Tennessee, 577-4793



In Sprains, Strains and Muscle Spasm, 'Soma' Compound

numbs the pain...not the patient

A potent analgesic and a superior muscle relaxant

1. A sprain or fracture is not a big clinical problem—but it does hurt. And if there is housework to do and kids to mind, the patient needs something to numb the pain.

2. A.P.C. compounds have limited usefulness; and the patient can buy them without your prescription. Unfortunately, most of them are too mild to be effective for sprains—and more potent products too often make the patient feel 'dopey'.

3. 'Soma' Compound is ideal in these cases. Since it contains both 'Soma' (carisoprodol) and acetophenetidin it is both a potent analgesic and a superior muscle relaxant; it also contains caffeine to offset any drowsiness *("numbs the pain...not the patient").*

4. Why not try 'Soma' Compound? Dosage is 1 or 2 tablets q.i.d. For more severe pain, try 'Soma' Compound + Codeine. Dosage: 1 or 2 tablets q.i.d.

5. Hypersensitivity to carisoprodol may occur rarely. Codeine may produce addiction, nausea, vomiting, constipation or miosis.

Soma® Compound

carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg.

Soma® Compound + Codeine

carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg., codeine phosphate 16 mg. (Warning—may be habit forming.)

®WALLACE LABORATORIES / *Cranbury, N.J.*

CSO-9193

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

HIGHLAND HOSPITAL, INC.

FOUNDED IN 1904

ASHEVILLE, NORTH CAROLINA

Affiliated with Duke University





A nonprofit psychiatric institution, offering modern diagnostic and treatment procedures—insulin, electroshock, psychotherapy, occupational and recreational therapy—for nervous and mental disorders.
The Hospital is located in a 75-acre park, amid the scenic beauties of the Smoky Mountain Range of Western North Carolina, affording exceptional opportunity for physical and emotional rehabilitation.
The OUT-PATIENT CLINIC offers diagnostic services and therapeutic treatment for selected cases desiring non-resident care.

R. CHARMAN CARROLL, M.D.
Medical Director

ROBERT L. CRAIG, M.D.
Associate Medical Director

JOHN D. PATTON, M.D.
Clinical Director

Schering

in dermatoses amenable to topical steroid therapy

METI-DERM®

Prednisolone, 16.6 mg. in 50 Gm. container and 50 mg. in 150 Gm. container; in nonsensitizing vehicle—isopropyl myristate with inert propellants—trichloromonofluoromethane, dichlorodifluoromethane.

AEROSOL

COOLS

instant cooling, soothing effect • covers every part of the lesion, any area of involvement • controls the itch, delimits the area of edema and erythema • nonfluorinated—avoids risk of steroid absorption • easy to carry and apply away from home—no residue on the skin



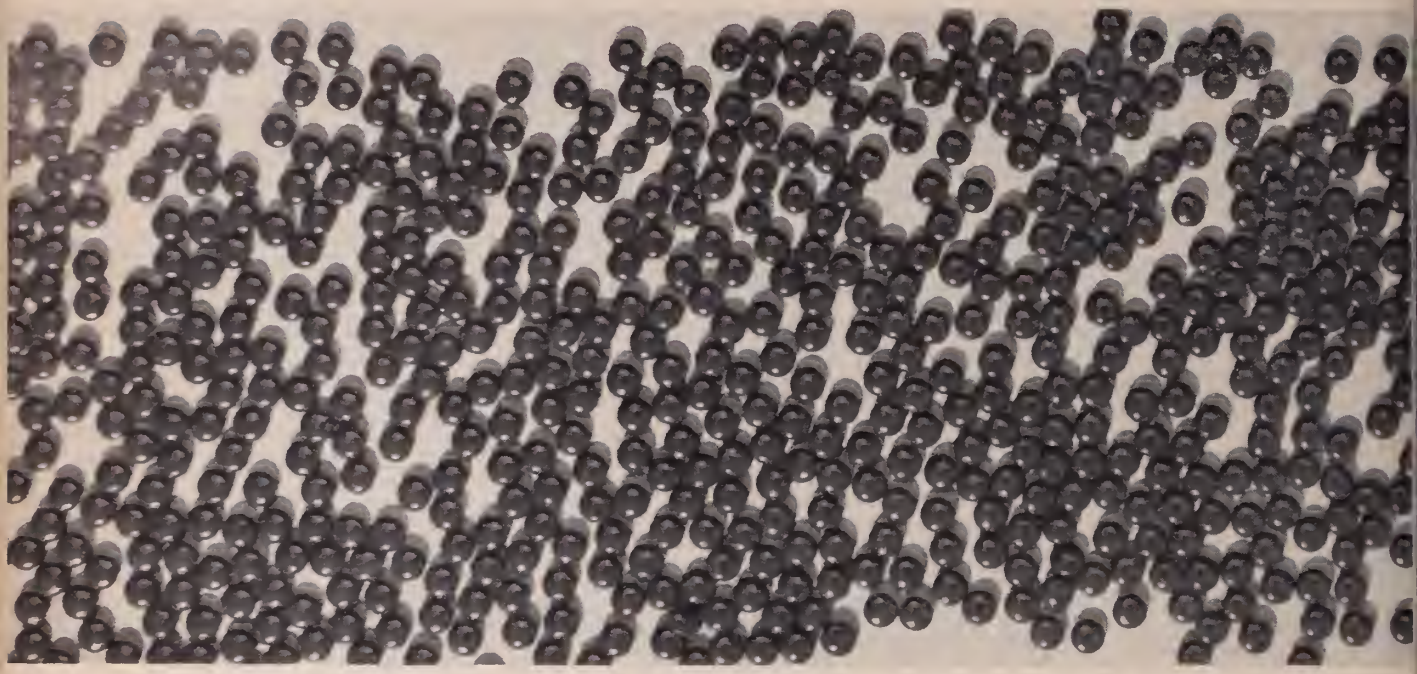
Clinical Considerations: In allergic dermatoses, until the specific causative agent is identified and removed from the patient's environment, the condition may be expected to recur when therapy is terminated. If infection is present, appropriate antibacterial measures should be taken. METI-DERM (prednisolone) Aerosol should not be sprayed around the eyes. Contents of can are not flammable but are under pressure. Containers should be stored in a cool place and neither punctured nor incinerated. For complete details, consult Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Union, New Jersey.

® prednisolone topical, Schering.

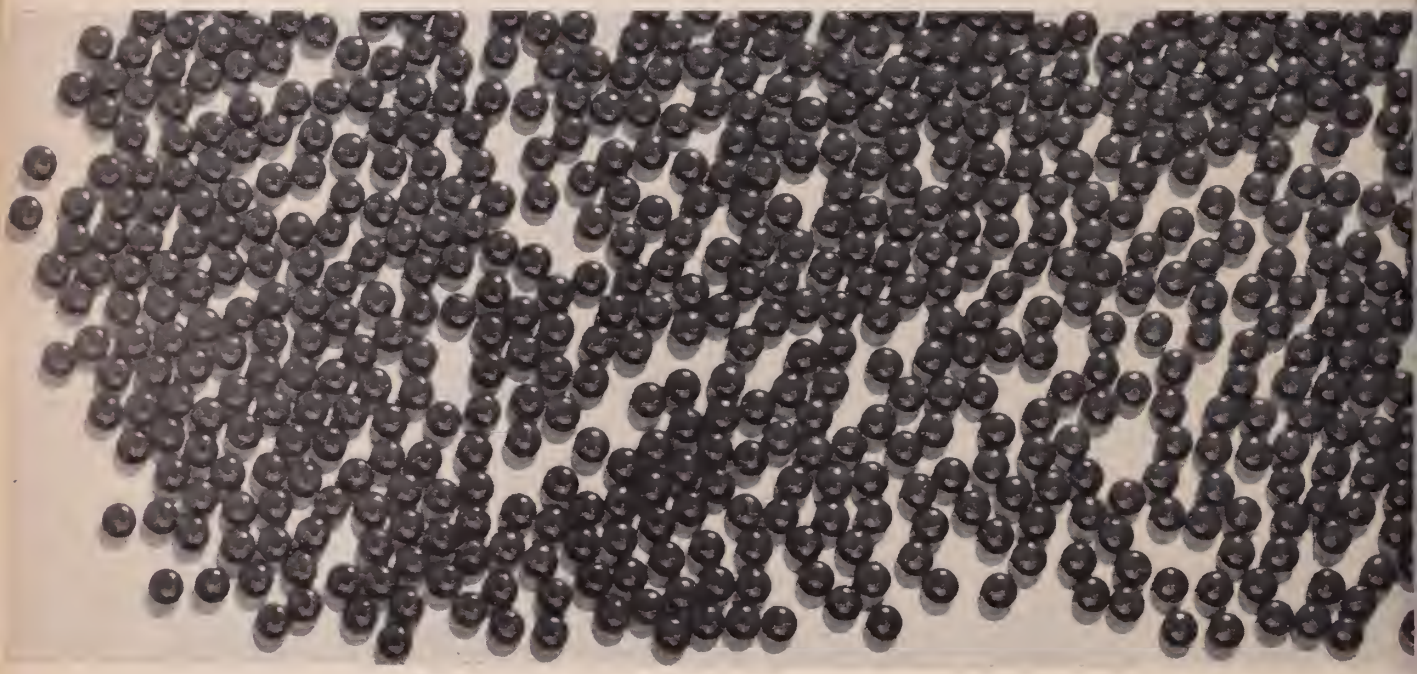
S-192R



This is half an inspection



. . . this is the other half



Inspecting a coated tablet poses a two-sided problem: How do you make certain that both top and bottom are flawless without picking up each tablet and turning it? ■ We have a machine especially designed to do the job. The tablets pass along a belt under the watchful eye of an inspector. Any tablet that has the slightest irregularity in shape or coating is rejected. Then a second belt overrides the first and, holding the tablets tightly in place, turns them over and delivers them to another belt for inspection of the other side. ■ It is another in a long series of control measures designed to deliver quality pharmaceuticals every time.

Eli Lilly and Company • Indianapolis 6, Indiana, U. S. A.

Lilly

390079

Journal of the Tennessee Medical Association

OWNED AND PUBLISHED BY THE ASSOCIATION

Volume 56 JUNE, 1963 No. 6

Abstract of the Proceedings of the House of Delegates of the Tennessee Medical Association Knoxville—April 7-9, 1963

The House of Delegates of the Tennessee Medical Association, meeting at the Andrew Johnson Hotel, Knoxville, Tennessee, April 7 and 9, 1963, in conjunction with the 128th Annual Meeting of the Association, convened at 1:00 P.M. with Dr. J. Malcolm Aste, Speaker of the House, presiding.

The invocation was rendered by Dr. John H. Burkhart, Knoxville, a member of the Board of Trustees.

DR. JOHN H. BURKHART: "Almighty God our Father, Thou who are mindful of every event, every thought, every word, and every action on this earth which Thou has created, supplement Thy knowledge of this meeting this afternoon by the addition of Thy blessing on it. In matters that seem routine and often tiresome, give us patience to do those things which may be necessary to the orderly procedure of this House of Delegates. In those matters which require expression of ideas, careful consideration of various aspects, and sometimes controversial positions and conflicting opinions, give us each the openness of mind to be receptive, the stoutness of principle to be fair, the courage of conviction to be counted, and the greatness of heart to be tolerant of the opposite view. May the work we do here be of value in Thy Kingdom. Amen."

Dr. J. W. Erwin, Blountville, Chairman of the Credentials Committee reported a quorum of registered delegates present.

The Speaker announced that the Minutes of the last regular session were reproduced in the June, 1962, issue of the JOURNAL of TMA and requested that a motion be presented to approve the proceedings as published. It was moved and duly seconded that the Minutes of the 1962 regular session be approved as published in the June, 1962, issue of the JOURNAL. **The motion was put to a vote and adopted.**

The Speaker announced the personnel of the following Reference Committees:

Committee on Credentials

J. W. Erwin, Chairman, Blountville
Oscar McCallum, Henderson
Carl Adams, Murfreesboro

Committee on Amendments to the Constitution and By-Laws

John H. Burkhart, Chairman, Knoxville
James N. Thomasson, Nashville
R. A. Calandruccio, Memphis

Committee on Resolutions

C. D. Hawkes, Chairman, Memphis
Robert E. Baldwin, Chattanooga
B. K. Hibbett, III, Nashville

Committee on Reports of Officers

Edward G. Johnson, Chairman, Chattanooga
James C. Gardner, Nashville
S. Fred Strain, Sr., Memphis

Committee on Reports of Standing Committees

J. Cash King, Chairman, Memphis
J. J. Callaway, Nashville
James K. Maloy, Kingsport

Committee on Reports of Special Committees

George L. Smith, Chairman, Winchester
William A. Garrott, Cleveland
Byron O. Garner, Union City

Committee on Outstanding Physician of the Year

James C. Gardner, Chairman, Nashville
Harmon L. Monroe, Erwin
William O. Vaughan, Nashville

Nominating Committee

The Speaker announced that the Board of Trustees had complied with the By-Laws by appointing a Nominating Committee

with representatives from each of the three grand divisions of the state, with no two members from the same county medical society. The Speaker announced the Nominating Committee as follows:

Middle Tennessee:
W. O. Vaughan, Chairman, Nashville
K. M. Kressenberg, Pulaski
Carl Adams, Murfreesboro

East Tennessee:
A. M. Patterson, Chattanooga
Dan Thomas, Knoxville
H. L. Monroe, Erwin

West Tennessee:
Harold B. Boyd, Memphis
J. Paul Baird, Dyersburg
Oscar McCallum, Henderson

Announcements

The Speaker announced that the work of the House would be carried out as by previous speakers and urged members of the House to be brief but concise in presentations. It was requested that the "WHEREAS" portions of the resolutions be omitted in the presentation of resolutions and that the "RESOLVEDS" only be read. Officers and Committee Chairmen were requested to summarize their reports. The Speaker also urged members to appear before the Reference Committees to debate the various issues as presented in the House. The Speaker requested that all Reference Committees meet at 9:00 A.M. on the following day.

The Speaker appointed Dr. Joseph W. Johnson, Jr., Chattanooga, to act as Parliamentarian in the sessions of the House.

Materials contained in the Delegates' Kits were briefly explained by Mr. Ballentine, Executive Director.

Petitions to Charter or Relinquish Charters of County Medical Societies

There were no petitions offered for the chartering of new societies. Dr. David Taylor, Councilor of the Ninth District, reported that the Lauderdale County Medical Society had surrendered its Charter and that members of the Society had become members of the Northwest Tennessee Academy of Medicine. He recommended that the Charter of the Lauderdale County Society be relinquished.

The motion to relinquish the charter of the Lauderdale County Medical Society was put to a vote **AND ADOPTED.**

Amendments to the Constitution and By-Laws Lying on the Table

Lying on the table from the last regular session were four amendments to the Constitution and one to the By-Laws. As called for in the Constitution and By-Laws, these amendments had been forwarded, sixty days in advance of the meeting, to all county medical societies. Mr. Ballentine briefly summarized the amendments.

Constitution—Amendment No. 1

"Amend Article I and Article V of the Constitution by deleting the word "State" from the name of the Association.

Article I: The name and the title of this organization shall be 'The Tennessee Medical Association.'

Article V: The House of Delegates shall be the legislative and business body of the Association, and shall consist of (1) Delegates elected by the Component Societies; (2) ex-officio the Officers; (3) the five most recent surviving ex-Presidents of the Association, except that all ex-Presidents who were living in April 1956 shall be members for life; (4) the Associations delegates to the American Medical Association, the Commissioner of Public Health and the Commissioner of Mental Health for the State of Tennessee, provided such Commissioner of Public Health or Mental Health is a member in good standing of the Tennessee Medical Association."

The 1962 Reference Committee on Amendments to the Constitution and By-Laws recommended adoption of Amendment No. 1 to the Constitution.

ACTION: **ADOPTED.**

Constitution—Amendment No. 2

"Amend Article VIII, Section 1 by eliminating the hyphenated words 'Secretary-Editor' and substituting the word 'Secretary.'

Section 1: The officers of the Association shall be a President, President-Elect, a Vice-President for each of the three grand divisions of the State, a Secretary, the six elected Trustees, ten Councilors, a Speaker of the House of Delegates, and

a vice-speaker of the House of Delegates.

"Amend Article VIII, Section 2, Paragraph 1 by deleting the words, 'Secretary-Editor of the JOURNAL' and substituting the word, 'Secretary.'

Section 2—Paragraph 1: The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the immediate Past President, the President-Elect, the Secretary, and six members elected by the House of Delegates as hereinafter provided.

"Amend Article VIII, Section 2, Paragraph 3 by deleting the last sentence entirely, changing the period following the preceding sentence to a comma, and adding, 'and a Treasurer from the six elected as Trustees.'

Section 2—Paragraph 3: The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself. The Board of Trustees will organize by the election of a Chairman, and a Treasurer from the six elected as Trustees.

"Amend Article VIII, Section 4 by deleting the words 'the Secretary-Editor' and substituting the words 'a Secretary.' Also amend Section 4 by deleting the comma after the phrase 'for one year' and inserting a period; by deleting the next word 'and' and begin a new sentence with the next word, 'The.' Insert the words, 'and the Secretary' after 'The Speaker of the House' and before 'shall hold office for not more than four consecutive years.'

Section 4: The President-Elect, the three Vice-Presidents, a Secretary and the Speaker of the House of Delegates shall be elected annually for one year. The Speaker of the House and the Secretary shall hold office for not more than four consecutive years. The President-Elect shall assume office as President at the expiration of the term of the President.

"Amend Article VIII, Section 5 by deleting the period at the end of the sentence after the word Council and adding 'without vote.'

Section 5: The President, Secretary, and Speaker of the House of Delegates shall be ex-officio members of the Council without vote.

"Amend Article VIII, Section 7 by deleting the comma after the word 'Association' and deleting the words 'except the Councilors.' Also delete the comma following the words 'except the Councilors.'

Section 7: All officers of the Association shall be elected at the second regular session of the House of Delegates, and they shall assume office when elected."

The 1962 Reference Committee recommended adoption of Constitutional Amendment No. 2.

ACTION: **ADOPTED.**

Constitution—Amendment No. 3

"Amend Article IX, Section 1, by adding a sentence at the end of Section 1.

Section 1: The Board of Trustees shall have entire control of the publication, the policy and the editorial and financial management of the JOURNAL of the Association. It shall be authorized and empowered to make all contracts necessary for the conduct of the JOURNAL. It shall appoint the Editor of the JOURNAL.

"Amend Article IX, Section 3, Sentence 1, by deleting the hyphenated word 'semi-annual' and inserting the word 'quarterly.'

Section 3: The Board of Trustees shall hold quarterly meetings, one of which shall be held on the last day of the Annual Meeting, and such other meetings as the business of the Association may require, subject to the call of the Chairman. The Board of Trustees shall make expenditures of the funds of the Association dependent upon the availability of such funds as determined by the Board of Trustees and as ordered by the House of Delegates. The Board of Trustees shall render at the Annual Session a full and detailed accounting of all receipts and disbursements.

"Amend Article IX, Section 6, Sentence 1, by deleting the words, 'except the Chairman; who is ex-officio the Treasurer, whose compensation shall be fixed by the House of Delegates;'.

Section 6: The Board of Trustees shall serve without compensation, however, their actual expense in attending the meetings of the Board shall be paid out of the funds of the Association. This is not to apply where a meeting is held at the Annual Meeting."

The Reference Committee recommended adoption of Amendment No. 3 to the Constitution.

ACTION: A D O P T E D

Constitution—Amendment No. 4

"Amend Article VIII, Section 8 by deleting the words, 'or Vice-President'.

Section 8: No member who has not been a member in good standing for five years next preceding election, or who is not in attendance at the meeting shall be eligible for election as President-Elect."

The Reference Committee recommended adoption of Amendment No. 4 to the Constitution.

ACTION: A D O P T E D

By-Laws—Amendment No. 5

"Amend Chapter IV, Section 2 by adding at the end of this section, 'No delegate from any chartered component medical society shall be entitled to be seated in the House of Delegates unless the component medical society which he represents has complied with the requirements of the Association by submitting the report to the Councilor of the District in which the component society is located.'

Section 2: Each component Society shall be entitled to send to the House of Delegates each year one delegate for every fifty active and veteran members and one for every fraction thereof, based upon the number of such members in the component Society in good standing as of December 1 of the year preceding the session of the House. Each component Society holding a charter from the Association, which has made its annual report and paid its assessment as provided in the Constitution and By-Laws, shall be entitled to at least one delegate. No delegate from any chartered component medical society shall be entitled to be seated in the House of Delegates unless the component medical society which he represents has complied with the requirements of the Association by submitting the report to the Councilor of the District in which the component society is located."

The 1962 Reference Committee recommended that By-Laws Amendment No. 5 not be adopted. The Amendment was discussed by members of the House and Dr. Frank Moore, Jackson, urged that the Reference Committee's recommendation be reconsidered and that the amendment be adopted.

ACTION: **THE REFERENCE COMMITTEE RECOMMENDATION WAS REJECTED AND THE AMENDMENT WAS ADOPTED.**

Introduction of New Amendments

The Speaker called for the introduction of any proposed amendments to the Constitution and By-Laws. There were no amendments introduced to the Constitution. There were eight amendments introduced to the By-Laws.

COMPLETE CONTENTS OF ALL AMENDMENTS INTRODUCED IN 1963 ARE FOUND ON PAGES 235 TO 241 IN THIS ISSUE OF THE JOURNAL.

Dr. John H. Burkhart, Knoxville, Chairman of the Long-Range Planning Committee of the Board of Trustees, reviewed the work of this committee to bring about the changes proposed in the amendments. He gave a summarized explanation of the amendments.

BA No. 1

By: Dr. John H. Burkhart.

Amends Chapter II, Section 3 by substituting the words "Executive Director" for "Secretary" as the notifying person in the event of a change in the annual meeting; and supplies a word "The" for better English.

BA No. 2

By: Dr. John H. Burkhart.

Amends Chapter III by deleting Section 4; renumbering Section 5 to Section 4; substituting "Association" for "Society"; and specifies that papers read before the Association shall be deposited with the Editor of the Journal rather than the Secretary. This is a further delineation and separation of the Secretary of the Association and the position of Editor of the Journal.

BA No. 3

By: Dr. John H. Burkhart.

Amends Chapter IV, Section 5 and provides for first class transportation only for alternate delegates to one meeting a year of the House of Delegates of the American Medical Association.

BA No. 4

By: Dr. John H. Burkhart.

Amends Chapter V by deleting the sec-

tion which specifies that the Councilors shall be elected on the first day of the Session which is Sunday, and thereby establishes their time of election as being the same time that all other officers are elected. Also the words "after reading of the minutes" are deleted because the minutes are not read and this conforms to present practice.

BA No. 5

By: Dr. John H. Burkhart.

Amends Chapter VI, Section 1 by substituting the words, "Component Societies" for the word "section." In Section 3 pertaining to the duties of the Treasurer, the present By-Laws state that he shall deposit funds in a National Bank and the amendment adds "State" to permit the deposit of funds in such a bank. The amendment also called for the Executive Director to serve as recorder for the House of Delegates, rather than electing a temporary secretary; and further clarified the language relative to the Editor of the Journal. The amendment also clarified the language dealing with the Executive Director and the Councilors wherein the prerogative to consolidate societies was involved.

BA No. 6

By: Dr. John H. Burkhart.

Amends Chapter VIII by inserting seven new sections dividing the work of the Association into divisions and committees. It establishes five divisions and coordinates each by a member of the Board of Trustees. These divisions are: (1) Division of Scientific Advancement. (2) Division of Legislative Affairs. (3) Division of Communications and Public Service. (4) Division of Socio-Economics-Insurance and Medical Service. (5) Division of Governmental Medical Services. To each of these divisions, existing standing committees are assigned with provisions for other appropriate committees or sub-committees that may be established to be added to the appropriate division.

This amendment proposed to change the name of the Committee on Scientific Work to the Committee on Scientific Work and Post-Graduate Education; to change the name of the Committee on Public Policy and Legislation to the Committee on Legislation and Public Policy as a matter of emphasis and to conform with AMA's nomenclature; to dissolve the Committee on Postgraduate Education by combining this function with the Committee on Scientific Work; to change the name of the Public Service Committee to Communications and Public Service Committee; leaving 13 standing committees instead of 14. Duties of standing and special committees are defined, grammatical corrections are made and a new section added establishing special committees.

BA No. 7

By: Dr. John H. Burkhart.

Pertains to Chapter IX and from Section 1 removes the phrase stating that the dues of the members must be remitted to the Secretary of the Association, and makes it read that they must be remitted to the State Association.

BA No. 8

By: Dr. John H. Burkhart.

Amends Chapter XII, Section 12 dealing with the duties of the secretaries of component medical societies in keeping a roster of its members and furnishing same on an official report of the membership to the Tennessee Medical Association at least once a year.

THESE AMENDMENTS WERE REFERRED TO THE REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS.

Introduction of Resolutions

COMPLETE RESOLUTIONS AS ADOPTED BY THE HOUSE OF DELEGATES APPEAR ON PAGES 241-244.

The Speaker stated that the next business before the House was the introduction of Resolutions. Delegates were requested to read only the "Resolved" portions of the resolutions and not to discuss or debate them at the time of the introduction, but read them only in order for the Speaker to place the resolutions before the Reference Committee. The Speaker again pointed out that those persons interested in resolutions should appear before the Reference Committee to express their views. It was stated that opportunity would be given for debate and discussion when the resolutions were reported to the House by the Reference Committee on Resolutions on Tuesday April

9th. The rooms where the Reference Committee meetings would be held were announced. The following resolutions were introduced:

RESOLUTION NO. 1
By: Dr. Harry T. Moore, Jr. for Committee on Hospitals
Subject: Compensation of Interns and Residents

RESOLUTION NO. 2
By: Dr. A. Roy Tyrer, Jr., Chairman, Public Policy and Legislation Committee of the Memphis-Shelby County Medical Society (Read by Dr. B. G. Mitchell)
Subject: Establishment of Sub-committee of Public Service Committee of TMA for promotion of Kerr-Mills Program

RESOLUTION NO. 3
By: Dr. Tom E. Nesbitt, Chairman, Legislative and Public Policy Committee
Subject: Support of Passage of H.R. 4511, Amending the Social Security Act

RESOLUTION NO. 4
By: Dr. Frank H. Luton, Chairman, Committee on Mental Health
Subject: Acceptance by the Tennessee Medical Association of the AMA Statement of Principles on Mental Health

RESOLUTION NO. 5
By: Dr. Robert M. Finks for Nashville Academy of Medicine
Subject: Sabin Oral Vaccine Mass Immunizations

RESOLUTION NO. 6
By: Dr. Edward G. Johnson
Subject: Study of Provisions Under Keogh Bill

RESOLUTION NO. 7
By: Dr. J. Paul Baird, Northwest Tennessee Academy of Medicine
Subject: Consideration of a Special Study Committee to Discuss Procedures of House of Delegates

RESOLUTION NO. 8
By: Dr. J. Malcolm Aste, Speaker of House
Subject: Tennessee Medical Association Seal

RESOLUTION NO. 9
By: Dr. David Pickens (Read by Dr. James Thomasson)
Subject: Use of Hospital and/or Emergency Facilities for the Corporate Practice of Medicine

The above resolutions were referred to the Reference Committee on Resolutions.

The Speaker announced the next order of business would be to hear the Reports of Officers.

REPORTS OF OFFICERS

Report of the President

Wm. J. Sheridan, M.D.

The report of the President was a review of the work accomplished during the preceding year. Dr. Sheridan initiated his report by recommending that further consideration be given to electing the three vice-presidents as vice-presidents-elect in a manner similar to that which the president-elect is now chosen. He pointed out that through such action, orientation and advance planning could be consummated between the incoming president and the three vice-presidents, in order to effect better informational coverage for the entire state during the tenure of office.

The report pointed out the marked progress of the Association. Of all efforts expended, it was pointed out that the most strenuous were the efforts made in opposition to the Federal Government's proposed limited compulsory health plan for social security recipients aged 65 and above. The President reviewed the efforts made by the Association, the Woman's Auxiliary and others, and the results which kept the Social Security health bill from passing in Congress. The report stated that trends in politics and legislation had made it apparent that politicians have chosen to actively invade the particular field of medical care and have forced physicians to pick up the political gauntlet in self-defense.

The President outlined the duties and the activities of the organization formed in Tennessee known as "IMPACT" (Independent Medicine's Political Action Committee—Tennessee). The reasons for this organization were explained by the President and the necessity for having such an organization separate and apart from the Tennessee Medical Association.

The report covered the progress made in implementing voluntary, low-cost, broad coverage type of health and hospital insurance for low income groups and aged citi-

zens. He defined what is covered in the Tennessee Senior Citizens Plan.

A review of the Mental Health Committee's activities and program in Tennessee was presented. Participation in the AMA Congress on Mental Health was included in the report's listing of accomplishments.

The President called attention to the progress made with the Governor during the year on further promoting the Kerr-Mills Program on Medical Assistance to the Aged. The report reviewed the expansion in this program and the proposals presented to the Governor by the Advisory Committee to further broaden the MAA program.

The report concluded with the President's commendation to the Woman's Auxiliary and the valuable assistance rendered to the profession and the progress made during the past year. Proper recognition was accredited by the President to the Board of Trustees, the Committees and to the staff of the Tennessee Medical Association.

Report of Secretary-Editor

R. H. Kampmeier, M.D.

"Last year I commented upon the decrease in advertising which affected all the medical journals of the country. This drop has apparently been halted, and advertising has continued at the lower level. This is reflected in the pages devoted to advertising in the Journal of the Tennessee Medical Association during the years 1960, 1961, and 1962, advertising pages being respectively, 863, 676, and 678. To an extent, advertising pages influence those devoted to textual material, whose pages for the same years were 542, 460, and 502, respectively. The ratio of advertising pages to pages of text has been maintained roughly as in the past at about a 60:40 ratio.

"The Officers of the Association and the Editorial Staff have tried to bring you an overlook at the problems of medicine in these days of political, social, and economic change. The President's Page, the Editorial pages, Special Articles, and the yellow page inserts have more often than not directed attention to the current trends which will seriously influence the practice of medicine in the future. I may safely speak for the Officers of the Association in begging you to turn your attention to these pages and to the published actions of the House of Delegates, Board of Trustees, and the special committees of the Association to learn what the TMA is doing in meeting the challenges of today.

"Again, as in the past, your Editor wishes to thank Doctors Addison B. Scoville, Jr. and Albert Weinstein, Assistant Editors, for their able assistance."

Report of Board of Trustees

R. M. Finks, M.D., Chairman and Treasurer

It was the intent of the report to cover the important issues conducted by the Trustees where major policy decisions were involved. In keeping with the policy of the Board, four regular meetings were conducted during the year in the months of April, July, October and January. Special meetings of the Executive Committee were conducted when necessary.

The report stated that following each meeting of the Board, a resume of the proceedings were published in the issue of the Journal immediately following the meeting.

The report of the Board of Trustees was broken down into five major areas. The first dealt with Education. Under this broad heading, the Board (1) approved the recommendation of the Rural Health Committee to conduct a Statewide Rural Health Conference in 1963 in cooperation with the Tennessee Farm Bureau; (2) approved the Committee on Disaster Planning to conduct a postgraduate program over the state on civil defense; (3) approved the medical self-help training program in Tennessee; (4) approved the Executive Conference of State and County Medical Society Officers, conducted in February, 1963; and (5) appointed a Planning Committee to conduct a Statewide Mental Health Conference in 1963.

Under the heading Health Legislation, the report listed the following actions: (1) The Executive Committee met with the Governor and State officials on four occasions, working toward expanding the Medical Assistance to the Aged Program in Tennessee (Kerr-Mills Law). (2) At the request of the Governor, established a consulting committee to advise with the Governor and his Commissioners on health matters. (3) Heard numerous reports and considered a

number of important issues on state and national legislative matters.

Under Economic Problems, the Board (1) established the Tennessee Medical Association's Student Education Fund and appointed a Board of Directors to administer this activity. The Board allocated $25,000 to get the loan program under way. (2) Expedited to all possible extent the Tennessee Senior Citizens Plan and inaugurated vigorous action to obtain participation of Tennessee physicians in the plan.

In the area of Administration, the Board of Trustees (1) directed the projects and work of the Board's Long Range Planning Committee; (2) appointed all standing and special committees, including the establishment of important new committees; (3) carefully scrutinized and approved all financial reports and expenditures; (4) established a committee on Medicine and Religion; (5) studied changes in format of annual meeting; (6) approved recommendations for requests for additional funds from the State of Tennessee to expand the Vocational and Rehabilitation Program in Tennessee; and (7) endorsed the Planning Committee's recommendation for revision in the Association's By-Laws.

In other miscellaneous actions, the Board of Trustees (1) appointed the directors of the Statewide Independent Medicine's Political Action Committee; (2) appointed a committee to work for the improvement of hospital standards and accreditation of hospitals within the state; (3) endorsed recommendations from the Youth and Education Committee for formation of future physicians clubs; (4) studied a report for amending the basic science law wherein qualified non-citizen physicians might become licensed to practice in the state; (5) urged all hospital staffs to appoint effective utilization committees.

The report pointed out that the Association has exercised leadership in cooperation with the county medical societies and the American Medical Association at all levels of medical legislative activities. Appropriate representatives had been appointed to participate in various state conferences and national and regional meetings in behalf of this Association. It was reported that the Board had diligently served in the administrative and policy matters pertaining to the Association's work and publication of the JOURNAL.

The report concluded by stating that "the Board of Trustees will continue to conduct the affairs of the Association effectively and efficiently and will continue fervently to serve the interest of the Tennessee Medical Association and administer the policy determined by the House of Delegates."

Report of the Treasurer

The Treasurer's report contained the official audit conducted at the close of December, 1962; the audit being made by Grannis and Associates, CPAs of Nashville. It was shown that the Association received dues payments from 2,924 members, totaling $106,965.00 for the year 1962.

A sharp decrease in advertising revenue was revealed. Income from general advertising in 1962 totaled only $30,375.04 and total cost of publication of the JOURNAL was $33,302.88.

The Treasurer's report stated that the total budget for 1962 was $145,600.00, established for the operation of the organizational and public service departments. The Association operated well within this budget with a larger than expected cash reserve at the close of the year.

The Consolidated Financial Statement of operations included with the report revealed the Tennessee Medical Association's assets, including cash in banks, investments, land, building and equipment value, and liabilities. The Treasurer reported that the funds of the Association are used to provide services to the membership, salaries, committee activities, to operate the headquarters, journal, legislative activities, the annual meeting, expenses of AMA delegates, committee expenses and travel, attorney fee, auditing, and a myriad of expenditures used in the conduct of the Association's affairs. "TMA's members are kept abreast of current developments in medicine, legislation, economics, national affairs, and the total activities of the Association. The organization and operation of TMA is multi-phased and a complex operation requiring many actions and expenditures that cannot always be anticipated."

The total income for the Tennessee Medical Association in the year 1962 was

$153,467.88. This amount was realized from membership dues, annual meeting exhibits, journal advertising and miscellaneous income.

Expenditures for operation of the Association totaled $146,510.79, including the establishment of the Tennessee Medical Association Student Education Fund. The Treasurer informed members of the House that a certified public accountant's audit and all financial records were available for examination. A copy of the 1962 budget was also available for inspection by those who desired.

An examination of the books and records of the Tennessee Medical Association for the year ended December 31, 1962 was conducted by Grannis & Jones, a firm of certified public accountants. This audit report has been approved by the Board of Trustees. A consolidated report of pertinent financial information is as follows:

TENNESSEE MEDICAL ASSOCIATION

Nashville, Tennessee
December 31, 1962

CONSOLIDATED FINANCIAL STATEMENT

ASSETS:	
Cash in Banks (Operating Account)	$ 49,705.88
(Postgraduate Education Account)	14,920.98
Investments and Reserve	190,986.06
Total	$255,612.92
FIXED ASSETS:	
Land, Building, and Equipment (Includes depreciation)	$ 75,653.24
Student Education Fund	25,000.00
LIABILITIES:	
Withheld Income Tax, Payroll Tax, AMA Dues	$ 763.72

* * *

Statement of Operations (Consolidated)
January 1 - December 31, 1962

INCOME

Item	
Dues—TMA	$106,965.00
Annual Meeting & Exhibits	8,955.50
Journal Advertising	30,375.04
Investment Income	3,247.58
Other Income	3,924.76
TOTAL INCOME	$153,467.88
EXPENDITURES	
Annual Meeting	$ 9,529.25
Journal Publication and Administrative Expense	33,302.88
Public Service	3,790.45
Legislative Activities	3,520.56
Headquarters Building Operation	3,269.36
Legal and Auditing Fees	2,900.00
Printing, Supplies, Maintenance	3,258.66
Postage	1,270.35
Staff Salaries (6 persons)	35,722.32
Travel—Staff	5,086.77
Telephone and Telegraph	1,906.11
Payroll Taxes	958.73
Other Expenses (Misc.)	16,995.35
Total	$121,510.79
To establish Student Education Fund	25,000.00
Total Expenditures	$146,510.79
AMA Dues Collected	$89,730.00
AMA Dues Remitted	89,685.00

Report of the Council

FRANK A. MOORE, M.D., Chairman

The Chairman of the Council stated that his report was divided into two parts. The second part would deal with corporate practice and would be submitted by the chairman of this sub-committee of the Council, Dr. F. H. Cole, of Memphis.

The report stated that only a few instances of disciplinary action during the year were necessary and these were handled satisfactorily by the local medical societies and the Councilor of the district.

The report stated that the Council had gone on record unanimously supporting By-Laws Amendment No. 5, introduced in 1962, requiring that all societies make annual reports to the Councilor of their district. The report further called for consideration by the membership and the Nominating Committee in making suggestions of individuals who have the interest and desire to serve on the Council and to see that such interested physicians were elected to the Council when vacancies occurred.

Report of Sub-Committee on Corporate Practice

F. H. COLE, M.D., Chairman

The report stated that Resolution No. 3, adopted by the House of Delegates in April, 1960, stated that the employment or use of a physician by a corporation or agency which permits the sale of the services of

that physician for a fee is contrary to the best interests of medicine and is in violation of medical ethics and the statutes of the State of Tennessee. The report stated that primarily pathologists, radiologists, anesthesiologists, psychiatrists, and occasionally research physiologists and cardiologists are the physicians principally involved. At the time of the 1960 resolution a period of two years was given for correction of any unethical or illegal contractual relationships by physicians with hospitals.

The report stated that a large diversity of contracts were discovered with hospitals almost always acting as collecting agents and remitting to the physician some portions of the collected funds, usually after all expenses of the department had been paid.

The report went into considerable detail relative to the study of this problem. It was reported that on August 5th, the Council had met with representatives of the specialties in the fields of radiology, pathology and anesthesiology to discuss these issues. The Council affirmed its stand that steps need to be taken in order to assure that physician members of TMA can work in their chosen fields within the bounds of ethics prescribed for the profession, and within the legal requirements covering the corporate practice of medicine. The Council adopted a four-point plan in this respect, as follows:

1. That the practice of pathology, radiology, anesthesiology, and physical medicine be redefined as part of the practice of medicine, and that insurance benefits accruing for these services be obligations of professional service policies rather than hospitalization policies.

2. That the professional services involved in these branches of medicine comprises work done by the physician personally, as well as the supervision and control of technicians and others employed in the department concerned.

3. That the economic aspects of this practice be under the direct control of the physician. He should set his own fees, submit his own bills, keep accounting of his receipts and expenditures, and remit to the hospital a sufficient part of the funds to maintain and operate the department.

4. Control of the ethical aspects of the practice of these physicians should rest in their professional organizations and in medical hospital staff organizations, as does the ethical control of all other physicians.

The report stated that the Council was unanimous in its opinion that these four steps need to be taken. The Council also recognized that fundamental changes may be necessary in contractual agreements between physicians and hospitals. The committees of TMA concerned with these matters were urged to seek the cooperation of hospital administrators and insurance carriers to work out a transition period so that necessary adjustments can be accomplished.

The report stated that as long as compensations for physicians are collected under the heading of "hospital services" they will be subject to intolerable pressures. "Such physicians are also included as hospital functionaries in the various schemes to socialize medicine, and are specifically named as participants in the King-Anderson Bill."

The report concluded by stating that TMA cannot continue to recognize the double standard of medical ethics with one set of rules for most physicians and an entirely different code for men who choose to specialize in the laboratory sciences. "Neither can we continue to condone arrangements which are clearly in violation of the statutes of Tennessee." The Sub-Committee of the Council, through its Chairman, solicited the support of all physicians in the correction of these abuses.

Report of Executive Director

J. E. Ballentine

Upon the recommendation of the Reference Committee on Reports of Officers, the House of Delegates approved that the Executive Director's Report be inserted in the Journal as presented. The report of the Executive Director is of necessity detailed and explanatory. The complete report covering the Association's activities in the 1962-63 year is contained in this issue of the Journal on the following page.

THE ABOVE REPORTS WERE REFERRED TO THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS.

A Report to the House of Delegates and the Membership

TENNESSEE STATE MEDICAL ASSOCIATION

OFFICE OF EXECUTIVE DIRECTOR
112 LOUISE AVENUE
NASHVILLE 5, TENNESSEE

April 7, 1963

TO: HOUSE OF DELEGATES AND
MEMBERSHIP OF THE TENNESSEE STATE MEDICAL ASSOCIATION

The Executive Director's annual report for 1962-63 outlines in brief form the major activities in which the Tennessee State Medical Association has been engaged since the last annual meeting of the House of Delegates.

Services to the profession and to the public, as well as the implementation of policies and programs of the Association, represent the primary functions of the headquarters staff. Implementing the policies and programs of TSMA is a multi-phased operation in which all members of the staff function as a coordinating team.

This report is designed for a quick review of the most important facets of the Association's operations. The past year has been perhaps the most involved in the Association's history. The Medicare issue, the Executive Conference for State and County Society Officers, two special sessions of the House, and successful accomplishments in several projects have been realized.

Participation as a member of the Advisory Committee on Communications of the American Medical Association has been a major national activity of the Executive Director.

I invite you to review the report of the past years' activities of the Tennessee State Medical Association.

Respectfully,

J. E. Ballentine
Executive Director

OFFICERS REPORT NO. E

ANNUAL REPORT OF THE EXECUTIVE DIRECTOR

To: The House of Delegates
and to the Membership of the Tennessee Medical Association

A D M I N I S T R A T I O N

IMPLEMENTING:

Services to the profession and to the public, as well as implementation of policies, programs and business matters of the Tennessee State Medical Association, represent the primary functions of the headquarters staff. This report therefore concerns those activities which are organizational and administrative as conducted by the Executive Director, and actions occurring through the central office of the Association.

Implementing the policies, business and programs of TSMA is a multi-phased operation. Staff administration is the responsibility of the Executive Director who is charged with the duty of carrying out all approved activities of TSMA, as outlined in the Constitution and By-Laws, as well as numerous other assignments. Continuing services are provided to the President, Board of Trustees, Councilors, Tennessee Delegates to the American Medical Association, to all committees and other phases of operations for this Association.

A great amount of official correspondence, minutes, meeting notices, recording of proceedings and information of considerable diversity is compiled and expedited by the Executive Director and the staff.

Frequent trips for medical meetings, both state and national, make up a large portion of my schedule.

The responsibility of the Executive Director and the staff includes the operations of the business office (membership, records and data) accounting and bookkeeping, all preparations and arrangements to present the annual meeting and sessions of the House of Delegates, publication of the Journal of TSMA, maintenance and operation of the headquarters building, administration of the physician placement service, and assistance to the Woman's Auxiliary.

Implementation of the legislative communications program, both state and national as approved by the House of Delegates, the Board of Trustees and the Legislative Committee, is an important activity and is administered through the headquarters staff operations. The Association's successful legislative mission to Washington on March 7th represented an effective phase of the legislative program.

The Executive Director and staff personnel is responsible for assisting, maintaining and developing closer liaison with the fifty county medical societies in the state, coordinating the field service activities of TSMA and working closely with the councilors, the supervisory body of this Association for the ethical and professional aspects of TSMA. The headquarters staff, at all times, seeks to aid county societies in solving major problems.

The over-all activities of TSMA have expanded greatly, and 1962 was by far the most active year in my experience. Activities in the field of public service, economics, health insurance development, business administration, hospital utilization, and research on corporate practice, were among the many important aspects of the Association's work. All of these matters involve the duties of the Executive Director and the staff.

This House of Delegates was called into two special sessions to determine policy on several legislative issues. These special sessions were held on December 9, 1962 and February 2, 1963. The Executive Director acts as recorder for all sessions of the House.

SERVICES:

A most important role in the Association's program is leadership. TSMA members rendered outstanding service and participated in many vital functions during 1962. These included:

- Concerted efforts to recruit qualified students into medicine.
- Acted to assist doctors in locating in communities where they are most needed.
- TSMA headquarters served as a communications center for the distribution of health information. Communications were implemented through various media sources to carry the story of medicine to the people of Tennessee.

In the socio-economic field, the Association applied its professional knowledge, methods and ethics in seeking solutions to the complex economic problems affecting medicine today. Its work in this area resulted in the further study and expansion of the Tennessee Plan, getting the new Senior Citizens Plan for the Aged into operation and the broadening of the Medical Assistance to the Aged (Kerr-Mills) Program in Tennessee.

The Association has appropriately taken steps to participate in immunization programs, accident prevention campaigns and physical fitness projects in schools. It has actively participated in programs for mental health, aid to the aged, and has exerted leadership to solve other medical problems.

The Association has furnished information on medical education, quackery, insurance and a myriad of subjects. TSMA has maintained constant contact with key officials, commissions and departments at all levels in the State Government. It advises with the agencies administering health and welfare programs. It encourages and enforces medical ethics. It has promoted activities of the American Medical Association and maintained liaison between this state and related national groups. These are just a few highlights relating to services in 1962 in which the Executive Director and the staff have been engaged.

THE COUNCIL

The revised Councilor Districts have been put into operation which makes for a more contiguous relationship with medical areas, county societies and districts. The Council has and continues to study the very important question of corporate practice in an effort to find a solution to this problem.

B O A R D O F T R U S T E E S

The Board's report will speak for itself. However, as Secretary of the Board, I should like to point out that the Board has been active in efforts to broaden the Medical Assistance to the Aged Program (Kerr-Mills).

A long study by the Board's Planning Committee on revision of the Constitution and By-Laws and recommended amendments will be presented to this House of Delegates, including recommendations to activate the organizational procedures outlined in the chart which is a part of this report.

The Board and appropriate committees lead the opposition against the King-Anderson Bill which would place health care for the aged under the social security mechanism.

Establishment of the Tennessee Medical Association Student Education Fund has been implemented by the Board.

Established and organized a political action committee in Tennessee - officially named, "Independent Medicine's Political Action Committee, Tennessee" (IMPACT).

These are a few of the priority activities administered by the Board during its four quarterly meetings in 1962.

JOURNAL

The Journal has continued to reflect the growth and development of the scientific activities of this Association and in Medicine generally. Scientific articles, clinical pathological conferences, staff conferences, and scientific editorials, in addition to medical news on state and national issues have been regularly presented in the Journal.

Journal costs continue to be a major problem. The great decrease in advertising and growing cost of publication is a problem constantly before us. Income from advertising in the Journal for 1962 was $30,375.04, which was $3,624.96 less than 1961. The cost of production in 1962 was $33,302.88.

LEGISLATION

STATE:

In the 83rd Tennessee General Assembly, the Association's greatest interest was directed toward further expansion of the Medical Assistance to the Aged (Kerr-Mills) Program, as well as seeking passage of those bills approved by this House and sponsored by TSMA.

All bills with medical implication were scrutinized and appropriate action taken. Steps were taken to:

Encourage members of TSMA to take an active interest in local, political and legislative affairs.

Continued the legislative contact doctor program in each county of the state.

Conducted regional legislative conferences with key physicians, legislators and representatives in the nine congressional districts of the state.

NATIONAL

All issues relating to health care of the aged have received the attention of officers, Board of Trustees, appropriate committees, and staff.

Facilities of TSMA were utilized in assisting the AMA and other groups in the defeat of King-Anderson type legislation in the 87th Congress, particularly the fight in the Senate where a vote was taken in July, 1962. National legislation of medical significance received proper attention. This was particularly true in the case of adoption of H.R. 10 which passed and became law in 1962, enabling physicians to set aside funds for retirement purposes.

MISSION TO WASHINGTON

On March 7, 1963, TSMA Officers, staff members and physician representatives from the nine congressional districts of the state met in Washington with Tennessee's nine congressmen and senators, for discussion of mutual problems in the health field.

PUBLIC SERVICE PROJECTS

Activities included:

Cooperation with the State Public Health Department to develop a pocket folder to be carried by all persons listing immunizations, blood type, etc.

Promoted and maintained constant liaison with representatives of press, radio and television outlets.

Continued the presentation of the Public Relations Breakfast during the annual meeting.

Cooperated in the promotion of prepaid health insurance. The Tennessee Plan now includes 1,964 participating physicians and the newly developed Tennessee Senior Citizens Plan now has more than 1,200 physicians participating.

Assisted in efforts to inform and indoctrinate new members joining the Association for the first time.

Effectively worked with medical schools and physician groups in the promotion of donations to the American Medical Education and Research Foundation.

The Association's physician placement service maintains a complete record of Tennessee communities desiring physicians as well as a list of physicians who are interested in establishing a practice in Tennessee.

Plans have been completed by the Rural Health Committee for presenting next fall, a Statwide Rural Health Conference.

Advised with state agencies administering health and welfare programs.

TSMA EXECUTIVE CONFERENCE
FOR STATE AND COUNTY MEDICAL SOCIETY OFFICERS

On February 3, 1963, the Third Biennial Executive Conference for State and County Society Officers was conducted in Nashville.

Outstanding guests on this program included the Governor of the State, A Vice President of the AMA and the President-Elect of AMA, Dr. EDWARD R. ANNIS. In connection with the Conference, the Association was successful in reaching a new first in having Dr. Annis address a joint session of the Tennessee General Assembly. This is the first time in history that a visiting physician or an AMA official has been recognized in such a manner.

MEMBERSHIP RECORDS

The Headquarters Office keeps an up-to-date and accurate record of the Association's membership. The following chart will show the current status of membership.

TSMA MEMBERSHIP REPORT As of January 1, 1963			
	1962	1961	1960
Regular Dues Paying Members	2695	2664	2565
Veteran Members	195	190	174
Associate Members	34	37	41
TOTAL	2924	2891	2780
Deaths	49	50	61

AMA Members from Tennessee State Medical Association:

Dues Paying	2573
Dues Exempt	207
Total Active	2780
Associate	25
Total Members	2805

F I N A N C E S

An examination of the books and records of the Tennessee State Medical Association for the year ending December 31, 1962, was conducted by Grannis & Jones, a firm of Certified Public Accountants. The audit report was accepted and approved by the Board of Trustees. The official financial report is contained in the report of the Treasurer.

The Executive Director receives and disburses all funds, subject to approval of the Treasurer, arranges for the annual audit, prepares quarterly financial statements for the Board of Trustees, and monthly statements are submitted to the Treasurer.

Complete coordination by the Tennessee State Medical Association with the County Medical Societies and the AMA existed at all times. With similar groups, these were the basic units which anchored one of the really effective defensive lines of our times - and still possessed enough strength to unleash an offensive powerful enough to turn the tide of battle just when proponents of government medicine threatened to bar all within their path.

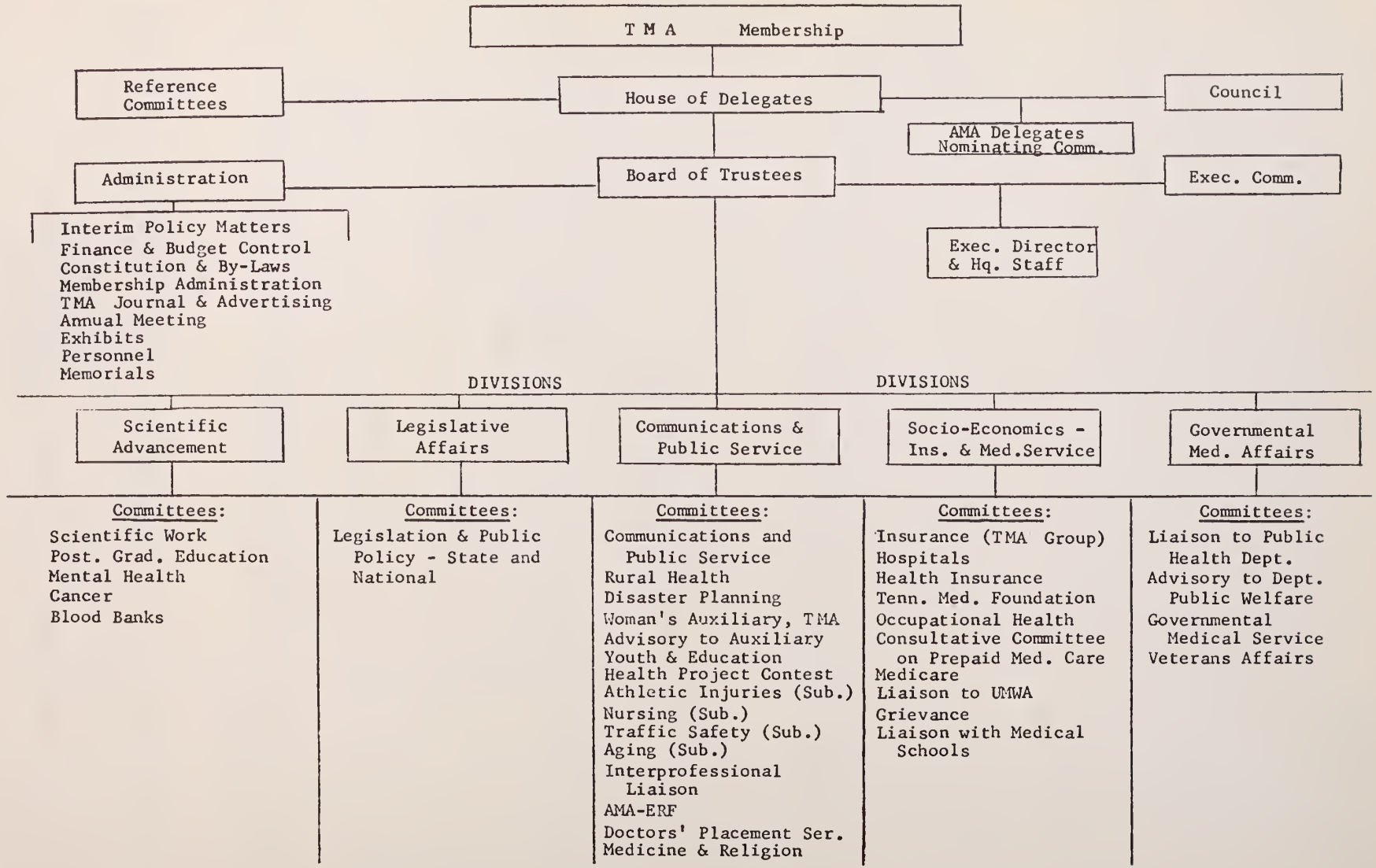
The problem of health care for the aged through social security will continue in 1963. We will have problems in the 88th Congress. This is why it is essential for every physician in Tennessee to rally around TSMA to give it his complete support.

As communications with nearly 3,000 physicians represents one of the Association's most important functions, the Executive Director and the staff coordinate efforts toward achievement of that objective.

Respectfully submitted,
J. E. Ballentine
Executive Director

TENNESSEE MEDICAL ASSOCIATION

ORGANIZATIONAL CHART



REPORTS OF COMMITTEES

The Standing and Special Committees were given necessary time to make their reports when the committee chairmen felt that additional time was indicated. All reports were abstracted to a considerable degree.

Standing Committees

Report of Committee on Scientific Work

R. H. Kampmeier, M.D., Chairman

"The Scientific program of the one hundred and twenty-eighth Annual Meeting of the Tennessee Medical Association is offered as an exhibit by this Committee. The responsibility of the three general sessions lies the Committee on Scientific Work, and in this program has continued the policy set by the Board of Trustees five years ago in providing toward certain stipends for guest speakers invited by the specialty groups.

"The committee includes, in addition to members of the Association at large, the secretaries of six specialty societies which will receive these stipends during the forthcoming year.

Members of the committee from the special societies are:

Dr. Wendell W. Wilson for The Academy of General Practice

Dr. J. W. Erwin for the Academy of Preventive Medicine and Public Health

Dr. W. David Dunnavant for the Tenn. Chapter, American College of Surgeons

Dr. Elton E. Shouse, Jr. for the Tenn. State Obstetrical and Gynecological Society

Dr. J. Sumpter Anderson for Tenn. State Society of Anesthesiology

Dr. Jean M. Hawkes for Tennessee Diabetes Association

Members for the profession at large are: Drs. Robert P. McBurney, John H. Burkhart, Fred B. Ballard and James W. Culbertson. Dr. Albert Weinstein and Dr. Addison B. Scoville, Jr. compose the Editorial Board.

"Your committee recognizes, along with the officers of the Association, the progressively increasing lack of attendance at scientific sessions, symptom of a nationwide trend. I can only hope that the program for this annual session may be of interest and value to you."

Report of Committee on Hospitals

Harry T. Moore, Jr., M.D., Chairman

It was stated in the report that the committee had served in a dual capacity. It functioned as a committee of the Tennessee Medical Association and had also met with the Executive Board of the Tennessee Hospital Association, acting as a liaison committee between this group and the State Medical Association.

The report stated that a problem concerning physician-hospital relationships had been referred to the committee by the Health Insurance Committee for consideration. The method of payment to intern and resident staff members had been studied and considered. It was the opinion of the committee that this was a local problem depending upon local economic conditions and the level and type of training offered.

The Chairmen stated that TMA had cooperated in the past with the Hospital Association in the matter of helping hospitals seeking accreditation, and physicians of TMA had accepted appointments as members of accreditation teams. The report pointed out that this is a long-range problem which the committee will continue to work with in order to improve patient care in Tennessee.

It was pointed out in the report that the Tennessee Hospital Association is planning to introduce into its House of Delegates, a resolution asking its members to set up a uniform system of charges. It was the opinion of the Committee on Hospitals that this would be a progressive move and would give the patient an itemized bill that he could understand and would be of great aid to physicians in helping to explain the charge to patients.

The Hospital Committee, in its report, recommended the formation of a committee to be known as the Consultative Committee of Purveyors, Providers, and Payers of Health Care. The purpose of such a committee would be to promote harmony in all groups, to work together for the benefit of public welfare and each component group, to act as a judicial body for the resolution of complaints between component groups and to promote public relations between these bodies and the public. The report recommended that this committee be composed

of two members from TMA; two from the Tennessee Hospital Association, two members of the Health Insurance Council, one member from the Tennessee Hospital Service Association and one member from the Memphis Hospital Service and Surgical Association.

Report of Committee on Legislation and Public Policy

Tom E. Nesbitt, M.D., Chairman

The report pointed out that the committee had experienced an active year due principally to the Tennessee General Assembly and problems on the national level dealing with the King-Anderson Bill and promoting and implementing the Kerr-Mills Law in Tennessee.

The report gave a detailed outline on the passage of the Good Samaritan Law and explained the misunderstanding that had occurred among some physicians during the passage of this bill. The term "gross negligence" was one which had created a problem among some physicians, however, this matter was worked out satisfactorily and the bill passed in the Tennessee General Assembly.

The many problems involved with the Optical Dispensing Bill were revealed in the report. It was pointed out that many factors influenced the legislators in this measure. It was stated that the optometrists who sponsored the bill were most active during the sessions. It was also revealed that there were some physicians who were opposed to TMA's stand and supported the optometrists in this legislation, and this was of considerable concern to the Legislative Committee.

The report stated that two important measures were defeated: one which would have permitted chiropractors to be licensed without taking the basic science examination; and the other was a bill which would have permitted any person serving as a practical nurse in the medical branch of the armed services for as long as two years to receive a license as a practical nurse.

The report pointed out that on the national level, close liaison with the AMA on all programs to defeat King-Anderson type legislation had been followed.

Relative to the Tennessee General Assembly, the Legislative Committee report stated that plans were underway to revise the contact doctor system before another session. The report concluded with an appeal for support from TMA members to assist the committee in its work on a state and national level.

Report of Liaison Committee to Public Health Department

C. D. Hawkes, M.D., Chairman

The report stated that for the past two years, the committee had made it possible for the Association to become better acquainted with the function of the Public Health Department, and expressed gratification that the Public Health Department will continue to function under the same leadership in the present administration. It was stated that the Kerr-Mills program had been studied and discussed with the hope that the legislation being sponsored by Mr. Baker might be adopted wherein the Health Department will have more to do with the matter of administration of the program in this state.

The report pointed out the problems involved with the crippled children's service and requested physicians to keep in mind the fact that they may be called upon to render a greater service from the standpoint of their own professional services, to implement this program, to make it effective as it should be.

The report concluded by pointing out that the cost of professional services is one of the problems that remains in bringing this program to as many children as are eligible.

Report of Insurance Committee

B. F. Byrd, Sr., M.D., Chairman

The Insurance Committee report gave a brief summary of the status of the Association's five group insurance plans. These dealt with: (1) Group Life Insurance (2) Professional Liability (3) Major Hospitalization (4) Professional Overhead Expense Insurance (5) Disability Insurance.

The report was primarily statistical giving the number of claims, participating physicians and actions involved with these various group plans for the past year.

From the Executive Director

TMA MEDICAL DIGEST

News of Interest to Doctors in Tennessee

ANNUAL MEETING HIGHLIGHTS

Dr. Bland W. Cannon Assumes Presidency

● At the Annual Meeting, April 7-10, Dr. Bland W. Cannon, Memphis, assumed the Presidency at the Banquet on the evening of April 8th when he succeeded Dr. William J. Sheridan, Chattanooga.

Dr. R. H. Kampmeier—President-Elect

● The President-Elect to lead TMA next year is Dr. Rudolph H. Kampmeier, Nashville, who will succeed to the Presidency during the 1964 meeting in Memphis.

Board of Trustees

● Re-elected as Chairman of the Board of Trustees and Treasurer, was Dr. Robert M. Finks, Nashville. Dr. Joseph W. Johnson, Jr., Chattanooga, was named Vice-Chairman. Elected to the Board of Trustees for three-year terms were: Dr. E. L. Caudill, Jr., Elizabethton—East Tennessee; Dr. C. D. Hawkes, Memphis, and Dr. G. Baker Hubbard, Jackson—West Tennessee; Dr. K. M. Kressenberg, Pulaski—Middle Tennessee. Dr. John H. Burkhart, Knoxville was elected Secretary and will serve as a member of the Board.

Councilors Elected

● Councilors were elected from the even numbered Councilor Districts. The terms were for two years and the following were elected. Dr. B. M. Overholt, Knoxville; Dr. Kenneth L. Haile, Cookeville; Dr. Harry T. Moore, Jr., Nashville; Dr. O. M. McCallum, Henderson; Dr. Francis H. Cole, Memphis. Three of the five elected were for the first term on the Council. They were: Drs. Haile, Moore and McCallum.

AMA Delegates and Alternate Delegates

● Dr. Alvin J. Ingram, Memphis, and Dr. Daugh W. Smith, Nashville were re-elected for two-year terms as delegates to the American Medical Association. The representatives were from West and Middle Tennessee. Alternate delegates elected were: Dr. Julian K. Welch, Jr., Brownsville—West Tennessee; and Dr. W. O. Vaughan, Nashville—Middle Tennessee. Hold-over delegates to AMA are: Dr. Chas. C. Smeltzer, Knoxville and his alternate is Dr. Wm. J. Sheridan, Chattanoga.

Vice-Presidents

● Elected for the 1963-64 year as Vice-Presidents were: Dr. Joseph L. Raulston, Knoxville—East Tennessee; Dr. Charles A. Trahern, Clarksville—Middle Tennessee; and Dr. Henry B. Gotten, Memphis—West Tennessee.

Speaker and Vice-Speaker of House Of Delegates

● Dr. J. Malcolm Aste, Memphis, was re-elected Speaker of the House of Delegates for 1963-64. Dr. Tom E. Nesbitt, Nashville, Vice-Speaker of the House, was re-elected for another year.

Annual Meeting Attendance—854

● The Annual Meeting registration—854. Final registration figures revealed that 535 Tennessee physicians registered, 17 guest speakers and visitors, 12 residents and 2 interns, for a total of 566 doctors. There were 113 exhibitors and 175 members of the Woman's Auxiliary—making a final total of 854 in attendance at Knoxville.

Physician of the Year —Dr. Lloyd Myers Graves, Mempis

● Dr. Lloyd Myers Graves, Memphis, was the recipient of the award made to the Outstanding Physician of the Year. Dr. Graves has made many contributions to medicine, particularly in the field of Public Health, and to his community. Dr. Graves is Director of the Public Health Department of Memphis and Shelby County. Other physicians who were finalists and considered in the balloting for the award were: Dr. J. O. Walker, Franklin, and Dr. J. F. Adams, Woodbury.

President's Banquet

● The President's Banquet was centered around the theme of education and entertainment, thus making it one of the features of the Annual Meeting. Dr. Durward Hall, a Member of Congress from the State of Missouri, was the guest speaker. His subject was "Medical and Citizenship Practice Go Hand In Hand." A special award to the Outstanding Physician of the Year was made. Awards were also presented to the Health Project Contest Winners. The contest is sponsored by the Tennessee Medical Association and a check of $500 was presented to representatives of the Biology Club of the Whitehaven High School, Memphis.

House of Delegates

● Important actions of the House included resolutions on: (1) Compensation of Interns and Residents; (2) Establishment of a Committee for Implementation and Expansion of the Kerr-Mills Program in Tennessee; (3) Approval by TMA of the AMA Vaccine Mass Immunization; (5) Study of Provisions under Keogh Bill; (6) A Revised Seal for the Association; (7) The Use of Hospitals and/or Emergency Facilities for the Corporate Practice of Medicine.

In other actions, the House approved a resolution calling for TMA to seek passage of H.R. 4511, a bill introduced by Congressman Howard Baker from Tennessee to amend the Social Security Act wherein programs such as Medical Aid to the Aged, Welfare Hospital Assistance, and other acts relating to the health care of the citizens of this and other states could be rendered by the State Departments of Public Health.

TMA Membership

● On January 1, 1963, the total of number of physicians who held membership in TMA was 2,924. Tennessee physicians holding membership in the American Medical Association totaled 2,805.

1964 Annual Meeting To Be Conducted In Mempis

● The 1964 Annual Meeting will be conducted in Memphis with headquarters at the Peabody Hotel. The dates for the meeting are April 12-15.

Dr. Kampmeier Re-appointed Editor Of Journal

● In approving amendments to the Constitution and By-Laws, the House of Delegates divided the office of Secretary-Editor, setting up a full-time officer as Secretary and designating the Board of Trustees authority to appoint the Editor of the JOURNAL. Dr. R. H. Kampmeier, Nashville, was re-appointed Editor, thus releasing him of the office of constitutional secretary of the Association.

Public Service

THE TENNESSEE TEN

HADLEY WILLIAMS, *Public Service Director*

"Operation Hometown" On the Move

● County societies throughout the state are responding to the national legislative program called "Operation Hometown" with coordinated efforts to inform the public of the domination, dictation, and regulation of social security financed medicine.

Nine meetings involving 22 county societies have been held thus far to get the program moving throughout the state. Four other meetings are scheduled to be held before the next Journal is published.

If your society has not been informed of "Operation Hometown", ask your society president when the program is scheduled to be presented. And, when you receive notice of the meeting, be sure to attend and accept a part of the campaign. Only by joining our efforts and soliciting the help of others can we make our voice heard.

—0—

"Fedicare"

● Senator James B. Pearson (R., Kan.) recently challenged the validity of the Administration's cost estimates of the "new" King-Anderson bill. Last year, Pearson said, the annual reports of the Social Security Administration estimated the calendar year 1962 loss in the Old Age and Survivors Fund would be $1 billion. This year's report, however, shows that the loss actually was $1.4 billion. Senator Pearson went on to say that the 1962 anticipated gain in the disability fund was $29 billion. Actually, the fund shows a $69 million loss. The Senator cited these statistics as an indication that the Administration's estimates on taxes to finance "Fedicare" constitute mere guesses.

—0—

How Much Is a Billion Dollars?

● Reno Odlin, a Tacoma, Washington banker, recently explained to a group of doctors just how much a billion dollars was. "Assume, doctors, that you opened a clinic in the year 1 A.D. with a reserve bank account of $1 billion. Assume, also, that business was poor and that your clinic lost an average of $1,000 a day until the present. Today, your heirs would still be far from broke. They would have a bank account of nearly $300 million to fall back on. In fact, they could keep on losing $1,000 a day for another 720 years to use up $1 billion."

—0—

Pay Raise

● Harold MacMillan, Britain's Prime Minister, has announced that 50,000 family physicians and dentists will receive approximately a 14% raise in pay under the National Health Service. This will give British general practitioners an income of about $7,742 a year and dentists about $6,720.

—0—

Doctor Draft

● A draft call will be issued in July and August for 1,350 doctors. The Defense Department says the call-up is necessitated by the fact that too few 1962 medical school graduates have volunteered for active duty following internship. With the majority scheduled to serve as general duty medical officers, 250 young doctors will be assigned to the Navy, 300 to the Air Force, and 800 to the Army.

—0—

Thought for the Month

● Medicine is the only profession that labors incessantly to destroy the reason for its own existence.—John Bryce.



(1) Miss Willard Batey of TMA, Nashville, Miss Dottie Brooks of Knoxville, Mrs. Roma Talley of Nashville, and Miss Ruby Schoonover of Jackson, handled the registration and the mountain of materials for delegates and registrants. (2) Typical scene in the exhibition hall as doctors visited the 47 booths. (3) Dr. Bland W. Cannon of Memphis, 1963 President of the Tennessee Medical Association, receives the gavel from retiring President Dr. William Sheridan of Chattanooga. (4) Officers and directors of the Woman's Auxiliary are; seated, left to right: Mrs. William A. Garrott, Mrs. Donald Bradley, Mrs. S. J. Sullivan, Mrs. E. E. Edwards, Jr., Mrs. Robert B. Newman and Mrs. A. L. Jenkins. Standing, left to right: Mrs. Richard Hofmeister, Mrs. Chester Adams, Mrs. Paul Wylie, Mrs. John C. Pryse, Mrs. Harold B. Henning, Mrs. Elmer Pearson, and Mrs. E. E. Wilkinson. (5) Dr. Sheridan addresses the huge crowd attending the President's Banquet at the C'est Bon Club. (6) Dr. Malcolm Aste of Memphis, Speaker of the House, presents Dr. Lloyd Graves, also of Memphis, a plaque as having been selected the Outstanding Physician of the Year, at the President's Banquet. (7) Dr. Robert M. Finks, Chairman of the Board of Trustees, presents a check for $500 to Miss Ann May, Mark Pilkinton, and his mother and teacher, Mrs. Betsy Pilkinton of the Whitehaven High School in Memphis, as winners of the Health Project Contest. (8) Escorting President-elect Dr. R. H. Kampmeier from the House of Delegates meeting to the general scientific session are, from left to right: Drs. John Hughes of Memphis, Kampmeier, Dana Nance of Oak Ridge, and William O. Vaughan of Nashville.

Report of Committee on Postgraduate Education

JOHN L. ARMSTRONG, M.D., Chairman

The report stated that the Committee had been inactive in 1962-63 with the exception of one joint effort with the Committee on Disaster Planning. Due to poor attendance and declining interest at the symposium type postgraduate education meetings, the Association discontinued the sessions across the state.

The report stated that on September 11, 1962, the Chairman of the Disaster Planning Committee and the Chairman of the Postgraduate Education Committee, together with staff members, met with Commander J. H. Littlejohn, State Civil Defense Officer of Health Mobilization, to plan a statewide conference. However, it was determined that the two committees could not produce a program that would match the regional program of the Health Services Advisory Committee of the United States Civil Defense Council in a week-long meeting planned in Knoxville and conducted October 15-19, 1962. This meeting presented an outstanding program of nationally known speakers covering subjects of utmost importance and the Postgraduate Education Committee placed all of its efforts in advising and informing members of the Tennessee Medical Association of the conference and urging the attendance of physicians interested in civil defense. Through this effort, the best available type of program of health aspects of civil defense were realized.

The committee made every effort to have the highlights of the program taped and filmed in order to bring these important subjects before county medical societies throughout the state. Due to lack of funds and other reasons, the taping of the program was not accomplished.

The report concluded by stating that the Committee on Postgraduate Education is on an inactive status and further presentation of such programs are not contemplated for the immediate future.

Report of Memoirs Committee

HENRY L. DOUGLASS, M.D., Chairman

The Memoirs Committee reported that since March 31, 1962 until March 31, 1963, 45 members of the Association had died. The names of the deceased physicians were read by the Chairman.

The report stated that "a short time ago these were the men who represented the medical profession and the record of their tenure is long and distinguished. They were no ordinary men. They were individualists who practiced medicine in their respective locales for more than a quarter of a century and made an unusual success of it. They held to the hard line in medical ethics but never lost the common touch in their efforts to help the sick and unfortunate. Some became leaders in medical organization, others in medical science and everywhere their influence was wisely used. All of them will be remembered for their beneficent services to people in time of need. They brought honor upon themselves and in doing this, honored the profession and the community they served."

The House stood in silent tribute to the deceased members.

Report of Committee on Health Insurance

B. K. HIBBETT, III, M.D., Chairman

The Health Insurance Committee report stated that Resolution No. 10 adopted by the House of Delegates in 1962 directed that a plan be established for Tennessee's senior citizens. The Tennessee Hospital Service Association (Blue Shield) was the only underwriter who offered to underwrite a plan to the public and it is presently the only underwriter of the Tennessee Senior Citizen Plan. The first enrollment was conducted early in the year and the report stated that participating physicians in this plan numbered slightly in excess of 1200. The cost of the Senior Citizens Plan is $12.25 a month for an individual and $24.50 for a family, including hospitalization, however, the charge for physicians' services in this plan is $3.12 a month for an individual and $6.25 for a family.

The report pointed out the the Executive Sub-Committee had held numerous meetings during the year for the purpose of studying the extension of the services in the Tennessee Plan. These additional services include the specialties of Medicine, Radiology, Pathology and Pediatrics. The report stated that the committee constantly keeps in mind the income level of the group in-

sured and is cognizant of the fact that the premium for such a plan cannot be too high. The number of participating physicians now under the Tennessee Plan is 1,964, which is an all-time high.

Medicare

The Executive Sub-Committee of the Health Insurance Committee had met upon necessary occasions to consider changes in the Medicare Contract as proposed by the Department of Defense. There were no significant changes in the present contract from the year 1962. The present Medicare Contract was negotiated and effective December 1, 1962 and expires November 30, 1963.

Committee on Cancer

B. F. Byrd, Jr., M.D., Chairman

The committee report pointed out that the single most effective weapon that medicine has against the King-Anderson Bill is adequate provision for medical care of the indigent in local communities. Furthermore, the report covered the fact that the medically indigent patients sorely mistreated is the individual who has cancer. For the group stricken by cancer, most of the medical programs are inadequate to care for hospitalization, drugs and other necessities. It was pointed out that the Kerr-Mills Program, as well as the Hospital Services to the Indigent Law in Tennessee fall short of caring for cancer patients.

The report stated that the Cancer Committee has studied this problem and has passed some observations on to the Board of Trustees in an effort to find a way to do something about furnishing adequate care for the indigent cancer patient in Tennessee.

Report of Advisory Committee to the State Department of Public Welfare

Aubrey B. Harwell, M.D., Chairman

This report concerned itself with certain recommendations approved in 1962 by the House of Delegates in the form of a resolution specifically recommending the broadening of the scope of the Kerr-Mills program to include: (1) neoplastic disease when treatable with reasonable hopes of success; (2) increased length of hospitalization when the patient's needs exceeded the ten day limit which was at this time in force; (3) the consideration of adding convalescent and/or nursing home care to the program; and (4) a broadening of the base of eligibility to include all those persons throughout the state whose financial position precluded eligibility for some form of voluntary health insurance.

The report stated that progress had been made: (1) neoplastic disease has been included with the disease category in that the definition of disease has been broadened to cover life threatening or sight threatening illnesses; (2) hospitalization has been increased from 10 to 15 days in the Kerr-Mills program; (3) nursing home care for a period of ninety days during a 12-month period has been added; and (4) the base for eligibility has been increased.

The report further stated that the number of persons certified under the program during the first 18 months, fell below expectations. It was also recommended that the present Kerr-Mills Program in Tennessee is too restrictive from the point of view of the income limits allowing eligibility.

The Committee recommended: (1) increasing the income base to a point substantially above the present limits of $1,000 for a single individual and $1,500 for a couple; (2) increasing the number of drugs contained in the drug formulary; and (3) adding a program of outpatient care to serve those with chronic illnesses such as heart disease, diabetes, neoplasms, asthma, etc.

The report further called for a re-definition of illnesses for categories of old age assistance to include life endangering and sight threatening illnesses as well as the acute injury or illness previously used as a basis for definition, and to expand the program elsewhere for a more effective old age assistance program.

Report of Communications and Public Service Committee

Walter L. Diveley, M.D., Chairman

The report stated that the principal effort of the committee for the past year had been in the direction of assisting county medical societies in planning and organizing their activities to the end that the programs of

the medical profession can be successfully implemented.

It was reported that one of the committee's principal activities had been the presentation of the Executive Conference for State and County Medical Society Officers which was conducted on February 3rd in Nashville and where Dr. Edward R. Annis, President-Elect of the American Medical Association was the principal speaker. The purpose of this conference was to explain the organization of medicine at all levels; to depict the inter- and intra-relationships which exist at all levels; and to inform the membership of TMA, through their leadership, of the projects and programs currently in the implementation stage. Particular emphasis was placed on legislation and public relations.

During the Officers Conference, Dr. Annis addressed a number of organizations and colleges in the Nashville area, as well as a joint session of the Tennessee General Assembly on February 5th.

It was pointed out in the report that the Physicians Placement Service had performed a valuable function in bringing together physicians seeking locations and communities seeking physicians. The committee strongly recommended that all local medical societies work vigorously in implementing public service projects and activities in keeping with the initial policy of the Public Service Committee, and concluded with a plea for a more workable communication to the public of the services rendered by the medical profession in Tennessee.

Report of Grievance Committee

JAS. C. GARDNER, M.D., Chairman

The Grievance Committee report stated that only one matter had been presented to the state committee during the year and one recommendation had been made to a local society grievance committee.

In the one case submitted to the committee, it was found that a breakdown in the relationship between the doctor and patient had existed and the committee made appropriate recommendations in this matter.

Report of Rural Health Committee

JULIAN C. LENTZ, JR., M.D., Chairman

(Read by W. N. DAWSON, M.D.)

It was pointed out that the committee had been active during the year and that the committee is at present planning to conduct a Rural Health Conference in Knoxville on October 9, 1963.

It was reported that two meetings had been conducted with good attendance and the entire program for the forthcoming conference had been established. Speakers have agreed to appear and a successful meeting is planned by the committee.

Standing Committees Not Reporting

Standing Committees not making a report to the House of Delegates were:

1. Committee on Tennessee Medical Foundation.

All of the above reports of standing committees were referred to the Reference Committee on Reports of Standing Committees—Reference Committee A.

SPECIAL COMMITTEES

Report of Consultative Committee on Administration of Prepaid Medical Care Plans

CARL N. GESSLER, M.D., Chairman

This committee report was summarized, highlighting the statistical data of the survey conducted by the committee. The report stated that the survey had shown an increased average length of stay in the hospital when there is a third party responsible for the bill. The report pointed out that approximately 80% of the admissions studied were paid for by either a commercial insurance carrier, or by Blue Cross or Blue Shield, or by charity organizations. It was shown in the survey that when a patient has been responsible for his bills, he has stayed an average of 5.17 days in the hospital, per admission. The average cost per hospitalization when the patient was responsible for his own bill was $185.89. It was pointed out that the study made by the committee represented too few cases for statistical accuracy and it would require the studying of several thousand of such cases to portray factual average data. Only seven out of approximately 259 hospitals in Tennessee had been studied. It was shown in the report that a great deal of the work was involved with mass statistics and would require a much broader survey on a larger number of cases in order to obtain a definite trend.

The report presented the following recommendations: (1) that the Tennessee Medical Association urge all hospital staffs to appoint effective utilization committees and to recommend that hospitals use the services of a professional auditing group such as the Commission on Professional and Hospital Activities in Ann Arbor, Michigan, the use of whose services this committee found to be most effective in gaining the present report; (2) that the Tennessee Medical Association urge all medical societies to organize review committees to advise hospital insurance carriers on claim problems in the local areas; (3) that the public be informed as to the steps the Tennessee Medical Association is taking to keep the costs of insurance premiums from increasing; and (4) that this committee be instructed regarding its further work to be done, which may require more surveys and other research to implement the present information.

The report concluded by stating that the committee had met with representatives of the insurance industry and representatives of hospitals to discuss these problems. It was believed by the committee that voluntary health insurance programs are important in the economics of medical care and that such programs should be encouraged, but should be protected from the few who would destroy it by over-use.

Report of Committee on Disaster Planning

HARMON L. MONROE, M.D., Chairman

The Chairman stated that there had been established in the Department of Public Health, a director for Health Mobilization Preparedness in the State of Tennessee and that liaison with the director had been established, and several conferences conducted.

The report stated that the medical aspects of civil defense is a small part of the overall picture and therefore it was difficult to interest the medical profession in sitting down and discussing a plan for caring for casualties of a major disaster.

The report pointed out that the Woman's Auxiliary of the Tennessee Medical Association had taken on the project of Self-Help Training Programs over the entire state. It was reported that one Auxiliary Chapter was presently teaching the course to people of that community.

The report stated that a steering committee for the Office of Health Mobilization had been appointed and that the committee contained a large number of TMA members. The report concluded by stating that the committee had established liaison with the officials of the Department of Civil Defense of the State of Tennessee and that progress was being made.

Committee on Occupational Health

GEORGE E. DUNCAN, M.D., Chairman

The report stated that the committee had met on October 7th where matters discussed were: (1) Minimal pre-employment physical requirements as related to the proper placement of the worker in industry. (2) The dissemination of Occupational Health information by local and county medical societies. (3) The consideration of a meeting of the Council on Occupational Health or the Congress on Occupational Health in a city in Tennessee. (4) The possibility of an Occupational Health award to a company with less than 500 employees who has shown the most improvement in its occupational health program. (5) A summary of Occupational Health information compiled from national and state meetings was approved and sent to all members of the committee for dissemination. (6) Certain members of the committee were asked to prepare articles on Occupational Health for presentation in the State Medical JOURNAL.

The report further stated that an exhibit entitled, "The Physician Relationship in Occupational Health" had been displayed in Memphis at the Mid-South medical meeting in February, 1963. In addition, a letter had been forwarded urging interested physicians in Tennessee to attend the Congress on Occupational Health in Boston in October, 1962.

The chairman stated that he had attended a meeting of state chairmen of Committees on Occupational Health in Birmingham, February 24, 1963, at which the following subjects were discussed: (1) The physicians' role in encouraging rehabilitation rather than indemnification. (2) Disability evaluation. (3) Means of increasing the teaching of Occupational Health in Medical Schools.

The report listed a number of pamphlets that had been added to the Occupational Health file and these had been forwarded to interested nurses and physicians throughout the year.

Report of Liaison Committee to the United Mine Workers of America

JOHN H. SAFFOLD, M.D., Chairman

It was stated by the Chairman that the committee had occasion during the year to confer by telephone or correspondence, but with the experience of the personnel of the committee, all of the problems had been satisfactorily concluded without the necessity of a meeting.

The report further pointed out that the committee had been able during the year to advise and mediate in areas where there were practices referred to it by either the UMWA Welfare Fund or by physicians concerned with the problem. The report concluded by stating that it was believed that the committee served a useful purpose and its existence should be continued.

Report of Advisory Committee to the Woman's Auxiliary to TMA

ROBERT L. AKIN, M.D., Chairman

The Chairman stated that no questions had been presented requiring determination by the committee. The committee had been informed during the year of the projects of the Woman's Auxiliary and it was stated that the Chairman had been invited to attend the Auxiliary Fall Board Meeting in Nashville. It was reported that a new Auxiliary in Warren County had been organized during the year.

The report pointed out that a strong Woman's Auxiliary provides for a much stronger Medical Association, and concluded with the statement: "Physicians and their wives working together for better health, will bring about closer relationship and better understanding of the people with whom they live and serve."

Report of Committee on Blood Banks

L. W. DIGGS, M.D., Chairman

The report was brief but stated that the Tennessee Society of Pathologists is participating in educational plans at the technologist level and has approved the organization of a State Blood Bank Association. Such an organization would serve to improve the quality of typing, cross-matching and transfusion procedures in the smaller hospitals. The report concluded by stating that such an organization is still in the formative stage and no action was indicated at this time on the part of the Tennessee Medical Association.

Report of Committee on Mental Health

FRANK H. LUTON, M.D., Chairman

The report stated that the activities of the Mental Health Committee had been numerous and diverse during the year. A review of the AMA Congress on Mental Illness and Health, conducted in Chicago in 1962, was presented.

The report dealt at length with the proposed Congress on Mental Health to be conducted in Nashville on November 13-14, 1963. A steering committee has been formed to direct such a Congress which would follow closely along the lines of the 1962 AMA Congress.

The report also outlined in detail the meeting of the Ninth Annual Conference of Mental Health Representatives of State Medical Associations.

It was pointed out that liaison between the Mental Health Committee and the State Department of Mental Health was excellent.

The report included a list of long-term plans for the treatment of the mentally ill. These included: (1) Providing for an eight-hour day for aides at the four large state hospitals and full operation of two new hospitals. (2) Support of a limited number of new community clinics. (3) Building funds will provide a new hospital and school for the mentally retarded in West Tennessee. (4) A resolution was passed by the Legislature calling for a study by the Legislative Council of commitment laws with the state. (5) The department of Mental Health has submitted to the proper authorities a planning program that will qualify it to receive substantial funds with appropriate matching, which will permit the department to engage in an intensive study of the mental health needs of Tennessee.

The report concluded by outlining the five

points contained in the President's national program for mental health.

Report of Health Project Contest Committee

LAWRENCE L. COHEN, M.D., Chairman

The Chairman stated that the 1963 contest was the 10th Annual Health Project sponsored by TMA, and there were thirty-seven entries from thirty-two different schools throughout the state, making the largest number of entries in the ten-year history of the contest.

It was reported that the awards had been increased and the total represented some $1,150 divided among five winners. The first prize of $500 went to Whitehaven High School Biology Club on the subject of "Fly Eradication". Representatives from the School were presented the award at the President's Banquet. The second prize of $300 went to the Science Hill School Biology Club of Johnson City on the subject, "Tuberculosis Campaign." Third place went to East Ridge High School, Girls' Health Class, and fourth place went to Grundy County High School Biology Class, Tracy City. Fifth place winner was Cohn High School Sociology Classes of Nashville, and this award was made by the Woman's Auxiliary.

The report stated that the winning entries were displayed at the Farragut Hotel where the meeting of the Woman's Auxiliary was conducted. The report concluded by recommending that an evaluation be made of the activity after another year.

Report of Legal Relations and Inter-Professional Code Committee

EDWARD T. NEWELL, JR., M.D., Chairman

The report stated that no meetings of the committee had been held during the year and it was believed that this was due to better understanding between the medical and legal professions. It was recommended in the report that the Inter-professional Code pamphlet be mailed to all members of the Tennessee Medical Association since it had been five years since the first mailing, and new members had been added to both Associations in the past few years who are not aware that such an Interprofessional Code exists.

Report of Committee on Sight Conservation

ROLAND H. MYERS, M.D., Chairman

It was reported that no problems had come before the committee which necessitated action, and further stated that the committee had made no definite decision as to determining when an eye is to be considered blind.

A supplemental report was presented by the Chairman which dealt entirely with legislative problems, particularly House Bill 314 which was introduced by the optometrists of the State in the 1963 Tennessee General Assembly. This bill would prohibit an ophthalmologist from using the services of an optician as a technician in the fitting of contact lenses. Since the passage of the bill, ophthalmologists now must do the actual fitting themselves, or employ a trained technician in their office, or refer their patients to an optometrist.

The report outlined in detail the problems involved with the processing of this bill in the legislature and the misunderstanding that existed between ophthalmologists and members of the legislature and with the difficulty confronted in trying to differentiate between an ophthalmologist, optician and optometrist by members of the legislature.

The report called for all physicians to act promptly in legislative matters when called upon and pointed out that encroachment of a non-medical group in forcing limiting legislation upon a medical group is one fraught with danger, particularly when such involved all groups of physicians. The report called for each physician to find out how the field of ophthalmology will be affected by any legislation proposed by optometry before it makes a commitment, in the same way that any ophthalmologist should investigate claims by any non-medical group against any other branch of medicine.

The report concluded by stating that Medicine's strength in influencing effective legislation lies in the immediacy of the response and the unity of action.

Report of the Tennessee Committee for the American Medical Education and Research Foundation

B. F. BYRD, JR., M.D., Chairman

The Chairman reported that the commit-

tee had met in October, 1962, to establish its plan of work.

It was reported that contributions to AMA-ERF were increased by $10,000. Part of this was the result of outstanding work by the Woman's Auxiliary to TMA and was an illustration of the continued generosity of physicians in the practice of medicine in the state.

The amount of funds allocated for schools in Tennessee were set out in the report: University of Tennessee School of Medicine —$22,480.93; Vanderbilt University School of Medicine—$21,167.08; Meharry Medical College $8,294.00; totaling $51,942.01.

Informational material had been furnished to constituent societies throughout the state, and in various mailings from TMA. The solicitation also received excellent coverage in the JOURNAL.

The report concluded by stating that "an increase of over $10,000 represents a gratifying expression of support from the physicians who have contributed the money, and it is a reflection of considerable effort on the part of the Auxiliary, who assisted by their Christmas Card drive."

Report of Committee on Youth and Education

JOHN H. BURKHART, M.D., Chairman

The principal work of the Committee on Youth and Education during the past year had been the implementation of Resolution No. 6, adopted in 1962 regarding the establishment of a student loan fund. It was reported that three committee meetings had been held and the result was the incorporating of a Tennessee Medical Association Student Education Fund. A Board of Directors has been established and the Tennessee Medical Association Student Education Fund has been chartered.

The report stated that the Committee accepted the invitation of the Executive Secretary of Tennessee Secondary Schools Athletic Association to furnish speakers at the Annual Coaches Clinic in July, 1962. The talks presented by these speakers were enthusiastically received by the coaches and TSSAA officials.

Liaison Committee to Medical Schools in Tennessee

BLAND W. CANNON, M.D., Chairman

The Chairman stated that the committee consists of physicians from the Tennessee Medical Association, the Deans of the three medical schools in the state, and the Vice President of Medical Units of the University of Tennessee.

It was reported that in the meetings to date, most of the matters discussed had been in reference to soliciting scholarship funds for the universities.

It was anticipated in the report that additional progress would be made by this committee in matters relating to the medical schools of the state.

All of the above reports of special committees were referred to the Reference Committee on Reports of Special Committees—Reference Committee B.

Special committees not submitting reports were:

1. Committee on Governmental Medical Services
2. General Liaison Committee

SPECIAL REPORTS

Report of Woman's Auxiliary to Tennessee Medical Association

MRS. E. E. EDWARDS, President

The President of the Auxiliary stated that she had traveled more than 5,000 miles during the previous year on Auxiliary business. Steps were outlined in the report of the activities and efforts to get more facts of medicine and the services of the profession across to the public.

The report stated that the Auxiliary now consists of some 1400 members. The efforts of the Auxiliary in funds donated to the American Medical Association Education and Research Foundation were listed and it was pointed out that the Tennessee Auxiliary had won the national trophy for the three years that it has been offered.

The Auxiliary made considerable progress in the activity of disaster planning and in working on the new program "Medical Self-Help Training". It was reported that five of the fourteen auxiliaries have taken this as a project for the year.

Community services is an ever-expanding field in which the Auxiliary is involved. Youth fitness, career days, future nurses' clubs and many other projects were outlined by the President of the Auxiliary. The

Health Project Contest had been an activity of extreme interest in the Auxiliary's work.

In the field of mental health, the Auxiliary had given increasing attention, especially for mentally retarded children.

County Auxiliaries sponsored highway safety programs and urged the use of seat belts. The report stated that the Rural Health Committee had been recognized in six of the fourteen counties organized and the committee had set up a program on Salk and Sabin Vaccines in these areas. A new committee had been added on International Health and it will operate in counties having sufficient interest in sending sample drugs, books, magazines, office equipment and other items requested by men and women of medicine over the world.

The report concluded by stating that a new local Auxiliary had been formed in Warren County, and extended an urgent request for every physician's wife to join an Auxiliary and work in its activities.

Report of AMA Delegation

CHAS. C. SMELTZER, M.D., Chairman

The report of the AMA delegation covered important actions taken in the AMA House of Delegates: (1) The revision made in the American Medical Education Foundation and the American Medical Research Foundation, wherein these were combined into the AMA Education and Research Foundation. (2) Resolved a misunderstanding between the American College of Surgeons and the Board of Trustees of the AMA. (3) A report of the Judicial Council of the AMA on the ownership of pharmacies and pharmaceutical companies by physicians. A portion of the adopted report follows:

"Present policy of AMA: It is not in itself unethical for physicians to own pharmacies or to hold stock in pharmaceutical companies. However, the ownership of a pharmacy or the ownership of stock or a financial interest in a pharmaceutic can, under certain circumstances, become unethical and contrary to the best interests of the public and the medical profession. When a complaint is made regarding the practices of a particular physician or group of physicians who own or have an interest in pharmacies, pharmaceutical companies, or drug repackaging companies, the local medical society has a positive obligation to investigate the facts. The society must ascertain whether the particular practice exploits the patient, whether it results in inferior medical care, whether the cost of drugs to the patient is increased, whether the situation is an act of derogation of the dignity and honor of the medical profession and its traditions, whether the particular practice is a subterfuge to permit the doctor to accept a rebate, whether it tends to cause the doctor to over prescribe or prescribe less effective drugs. Having conducted such an investigation, the local medical society must then take appropriate action where indicated to protect both the public and the profession."

(4) Implementation of the Kerr-Mills law was reviewed. (5) The American Board of Abdominal Surgery was not endorsed by AMA.

The report outlined the activities of the Committee on Communications. In addition, the report included action taken on Tennessee's four resolutions presented in the 1962 AMA House dealing with (1) Use of Animals in Research. (2) The National Blue Shield Plan for Senior Citizens. (3) Withdrawal of Persons Addicted to Narcotics in Tennessee. (4) Clarification of the Role and Responsibilities of Physicians and Medical Societies in Civil Defense and Disaster Planning.

The report stated that action taken at the Clinical Meeting in Los Angeles in November, 1962, had been reported in the JOURNAL of the Tennessee Medical Association.

The Special Reports were referred to the Reference Committee on Reports of Special Committees—Reference Committee B.

Report of Reference Committee on Outstanding Physician of the Year Award

JAS. C. GARDNER, M.D., Chairman

The Speaker announced that the next order of business would be the report of the Reference Committee on the Outstanding Physician of the Year Award and the election.

Dr. Jas. C. Gardner, Chairman of the Reference Committee, stated that the committee wished to nominate for consideration of the House, three physicians for the award. It was pointed out that the Committee was required to review all proposed candidates for this honor and to select three to be presented to the House. Since the committee had only received three proposed candidates, all were recommended for consideration. The candidates were: Dr. James O. Walker, Franklin, a member of the Williamson County Medical Society; Dr. J. F.

Adams, Woodbury, member of the Stones River and Rutherford County Medical Society; and Dr. Lloyd Myers Graves, Memphis, a member of the Memphis-Shelby County Medical Society. The Speaker called for the five minute nominating speeches for each of the candidates.

Dr. Harry Moore, Nashville, spoke in behalf of Dr. Walker; Dr. Matt B. Murphree, Jr., Murfreesboro, spoke in behalf of Dr. Adams; and Dr. John Hughes, Memphis, spoke in behalf of Dr. Graves.

Following the nominating speeches, the Speaker asked members of the House to prepare ballots. Tellers were appointed to count the ballots.

Prior to voting the Speaker asked the will of the House as to whether such an election would require a pleurality or a majority. It was the consensus of opinion that a majority should be used in the election.

Election of Physician of the Year

The result of the balloting was announced by the Speaker. Dr. Lloyd Myers Graves of Memphis was named the Outstanding Physician of the Year in Tennessee for 1963.

Other Business

The Speaker announced that since the changes proposed in the Constitution had been passed earlier in the afternoon, the election of Councilors would take place on Tuesday Morning, April 9th.

A number of announcements were made by the Speaker pertaining to the meeting of the Reference Committees. The Speaker urged all members who wished to discuss amendments, resolutions or reports, to appear before the respective Reference Committees to present their views.

There being no further business, the first session of the House of Delegates recessed at 4:40 P.M., until 9:00 A.M., Tuesday, April 9, 1963.

TUESDAY MORNING SESSION
April 9, 1963

The House of Delegates reconvened at 9:00 A.M. in the Andrew Johnson Hotel, Knoxville, with Dr. J. Malcolm Aste, Speaker of the House presiding.

The second session of the House opened with a report from the Credentials Committee Chairman, Dr. J. W. Erwin. A quorum was reported present and the Chairman stated that thirty-one ex-officio delegates had registered and sixty-one county medical society delegates, making a total of 98 delegates present.

The first order of business was the introduction of additional amendments or resolutions. There were no additional amendments or resolutions presented.

Introduction of Guests

The Speaker introduced Mrs. W. W. Hubbard, Nashville, a delegate from Tennessee to the Woman's Auxiliary to the American Medical Association. Mrs. Hubbard, in turn, introduced Mrs. William G. Thuss, Birmingham, Alabama, President of the Woman's Auxiliary to the American Medical Association.

Mrs. Thuss replied with a brief address to the delegates.

The Speaker announced that the next business of the House would be the Report of the Nominating Committee and the election of officers.

Report of Nominating Committee and Election of Officers

W. O. Vaughan, M.D., Chairman

PRESIDENT ELECT—Dr. R. H. Kampmeier, Nashville

SPEAKER OF THE HOUSE OF DELEGATES—Dr. J. Malcolm Aste, Memphis

VICE-SPEAKER OF HOUSE OF DELEGATES—Dr. Tom E. Nesbitt, Nashville

SECRETARY—Dr. John H. Burkhart, Knoxville

VICE PRESIDENT-East Tennessee—Dr. Joseph L. Raulston, Knoxville

VICE PRESIDENT—Middle Tennessee—Dr. Charles Trahern, Clarksville

VICE PRESIDENT—West Tennessee—Dr. Henry B. Gotten, Memphis

TRUSTEE from East Tennessee (Three-year term)—Dr. E. L. Caudill, Jr., Elizabethton

TRUSTEE from Middle Tennessee (Three-year term)—Dr. K. M. Kressenberg, Pulaski

TRUSTEE from West Tennessee (Three-year term)—Dr. Baker Hubbard, Jackson

TRUSTEE from West Tennessee (Three-year term)—Dr. C. D. Hawkes, Memphis

DELEGATE to the American Medical As-

sociation (Middle Tennessee)—Dr. Daugh W. Smith, Nashville

ALTERNATE DELEGATE to the American Medical Association (Middle Tennessee)—Dr. W. O. Vaughan, Nashville

DELEGATE to the American Medical Association (West Tennessee)—Dr. Alvin J. Ingram, Memphis

ALTERNATE DELEGATE to the American Medical Association (West Tennessee)—Dr. Julian K. Welch, Jr., Brownsville

The House voted upon the nominees individually and in each instance, the Speaker called for additional nominations from the floor. There were no nominations from the floor and **all of the nominees submitted above were elected by the House of Delegates.**

Nine physicians for the Public Health Council, three from East Tennessee, three from Middle Tennessee and three from West Tennessee, were submitted by the Nominating Committee. Three will be subsequently appointed by the Governor—one from each Grand Division of the State. Nominees were:

East Tennessee—
Dr. R. C. Kimbrough, Madisonville
Dr. S. C. Fain, Jefferson City
Dr. John W. Adams, Chattanooga

Middle Tennessee—
Dr. Morse Kochtitzky, Nashville
Dr. Thomas Weaver, Nashville
Dr. C. M. Clark, McMinnville

West Tennessee—
Dr. Kelley Avery, Union City
Dr. James N. Ettledorf, Memphis
Dr. Chester Jones, Jackson

The Speaker called for additional nominations from the floor. Dr. McCarthy DeMere, Memphis, nominated from West Tennessee, Dr. Anthony Jerome, Memphis

There were no nominations from the floor from East or Middle Tennessee and the Speaker called for a vote upon nominees submitted by the Nominating Committee from these two Grand Divisions of the State. **The above physicians from East and Middle Tennessee were elected by the House of Delegates as nominees for the Public Health Council.**

With the additional nomination from the floor, the Speaker called for a ballot vote for the physicians from West Tennessee. Ballots were collected and final tabulation showed that **the following nominees from West Tennessee were elected: Dr. Kelley Avery, Union City; Dr. Chester Jones, Jackson; and Dr. Anthony Jerome, Memphis.**

Three physicians from West Tennessee for the Board of Trustees of the State Tuberculosis Hospitals were presented by the Nominating Committee. One of the nominees will be subsequently appointed by the Governor. The nominees were:

Dr. David Taylor, Dyersburg
Dr. F. H. Alley, Memphis
Dr. Duane Carr, Memphis

The Speaker called for additional nominations; there being none, **the above physicians were elected.**

The Chairman of the Nominating Committee submitted the following list of physicians for membership on the Council. Dr. Vaughan stated that the committee had nominated councilors from Districts Two, Four, Six, Eight and Ten.

Second District—Dr. B. M. Overholt, Knoxville
Fourth District—Dr. Kenneth Haile, Cookeville
Sixth District—Dr. Harry T. Moore, Jr., Nashville
Eighth District—Dr. Oscar M. McCallum, Henderson
Tenth District—Dr. Francis Cole, Memphis

Following the nominations, the House voted upon the nominees individually and the physicians presented by the Nominating Committees were elected Councilors for the respective districts named. In each instance, the Speaker called for additional nominations from the floor. There were none.

Following the completion of the Nominating report, it was moved, duly seconded, **and the Report of the Nominating Committee was accepted as a whole.**

The Speaker invited Dr. R. H. Kampmeier, President-Elect to become President of the Tennessee Medical Association in 1964, to come forward, and be recognized by members of the House.

DR. KAMPMEIER: "Mr. Speaker, Members of the House of Delegates: I can assure you that I know of no greater honor than one accorded by one's peers. Because of

this, I certainly want to thank all of you for this honor which can come only from one's peers, and particularly to my friends in Middle Tennessee.

"You know that I have tried to add my bit for the last ten years as Editor for the JOURNAL, and sitting on the Board for this time, and I can assure you that as in the decade in the past, I always will have the Association's interest at heart, and will contribute whatever little I may. I again want to thank you so much."

The Speaker appointed Dr. W. O. Vaughan, Nashville; Dr. Dana Nance, Oak Ridge; and Dr. John Hughes, Memphis, as a committee of three to escort the President-Elect to the scientific meeting.

The Speaker announced that the next order of business was the Report of the Reference Committee on Amendments to the Constitution and By-Laws.

Report of Reference Committee on Amendments to the Constitution and By-Laws

JOHN H. BURKHART, M.D., Chairman

By-Laws—Amendment No. 1

Amend Chapter II, Section 3 of the By-Laws by inserting the word, "the" after the word, "on" and before, "date as named,"; and by deleting the word, "secretary" and substituting the words, "Executive Director" before "of the Association".

Section 3: "If for any valid reason an Annual Meeting cannot be held on **the** date as named, the President, the three Vice-Presidents, the Secretary, and the Board of Trustees may fix another date provided the Secretaries of component Societies are notified as far in advance of the changed date as possible by the **Executive Director** of the Association and, if time permits, each Member shall be notified by a personal communication mailed to his address."

The Reference Committee recommended adoption of Amendment No. 1 to the By-Laws.

ACTION: **A D O P T E D**

By-Laws—Amendment No. 2

Amend Chapter III of the By-Laws by deleting Section 4 in entirety and renumbering Section 5 to Section 4.

Section 4 (Deleted): "No address or paper before the Association, except the address of the President and invited guests, shall occupy more than twenty minutes in its delivery; and no Member may speak longer than five minutes, nor more than once on the same subject, provided each essayist be allowed five minutes in which to close the discussion."

Amend Chapter III, Section 4 (formerly Section 5) by substituting the word, "Association" for the word "Society"; and by deleting the word, "Secretary" and substituting the words, "Editor of the JOURNAL."

Section 4: "All papers read before the **Association** shall be its own property. Each paper shall be deposited with the **Editor of the** JOURNAL."

The Reference Committee recommended adoption of Amendment No. 2 to the By-Laws.

ACTION: **A D O P T E D**

By-Laws—Amendment No. 3

Amend Chapter IV, Section 5 by changing the period at the end of the Section to a comma and adding, "and only first class transportation for alternate delegates once a year."

Section 5: "It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body, for a period of two years, no two residing in the same grand division of the State, except when more than three delegates are authorized. The Association shall pay the expenses of each Delegate representing the Association at the American Medical Association meetings, **and only first class transportation for alternate delegates once a year."**

The Reference Committee recommended adoption of Amendment No. 3 to the By-Laws.

Motion: Dr. John Burch, Nashville, introduced an amendment to the Amendment wherein the word "once" would be changed to "twice" in the last sentence of Section 5. Dr. McCarthy DeMere raised a point of order that the amendment could not be modified without due notice to the entire membership. Dr. Joseph W. Johnson, Jr., Parliamentarian, stated that Dr. DeMere's point was well taken technically and offered an

opinion to the House as to the technicality which in his opinion protected neither the majority or minority in this instance. Dr. Johnson stated that in his opinion the House would be in order to vote on the amendment. A motion was made that Dr. Johnson's recommendation be accepted; the motion was seconded and adopted.

A motion was made that Dr. Burch's amendment be adopted, and the motion was duly seconded. The Speaker called for a standing vote, **and the amendment to Amendment No. 3 was defeated.**

ACTION: **AS RECOMMENDED BY THE REFERENCE COMMITTEE, AMENDMENT NO. 3 TO THE BY-LAWS WAS ADOPTED.**

By-Laws—Amendment No. 4

Amend Chapter V by deleting Section 3 in entirety and renumbering Sections 4, 5 and 6 to Sections 3, 4 and 5.

Section 3 (Deleted): "The Councilors shall be elected on the afternoon of the first day of the Session after their report is made to the House of Delegates, so that they may organize and plan the year's work. The nominations of Councilors may be made by the Nominating Committee."

Amend Chapter V, Section 3 (formerly Section 4) by deleting the words, "except the Councilors,"; by inserting the words, "session of the" before the words, "House of Delegates"; and by deleting the words, "after reading of the minutes".

Section 3: "The report of the Nominating Committee and the election of officers shall be the first order of business of the session of the House of Delegates on the morning of the second day of the General Meeting of the Association."

The Reference Committee recommended adoption of Amendment No. 4 to the By-laws.

ACTION: **A D O P T E D**

By-Laws—Amendment No. 5

Amend Chapter VI, Section 1, Sentence 3 by substituting the words, "Component Societies" for the word, "Sections"; and by substituting the word, "these" for "the Component".

Section 1: "The President, or his appointees, shall preside at all meetings of the Association. He shall appoint all members of Committees not otherwise provided for, shall deliver an Annual Address at such time as may be arranged, shall give a deciding vote in case of a tie, and shall perform such other duties as custom and parliamentary usage may require. He shall be the head of the profession of the State during his term of office, and, as far as practicable, shall visit, by invitation, the various Component Societies of the State and assist the Councilors in building up these Societies and in making their work more practical and useful. The retiring President shall be ex-officio a member of the Board of Trustees for one year."

Amend Chapter VI, Section 3 by inserting the words, "State or" after the words, "All funds shall be deposited in a" and before the words, "National Bank"; and by substituting the word, "him" for the words, "the Secretary" and inserting the word, "the" before "Executive Director" in the last sentence.

Section 3: "The Treasurer shall give bond for the trust reposed in him, for such amount as the remaining members of the Board of Trustees may name, said bond to be made by a regular bonding company, and paid for by the Association. He shall demand and receive all funds due the Association, together with bequests and donations. All funds shall be deposited in a State or National Bank. He shall pay money out of the treasury on bills certified to by **him** or **the** Executive Director of the Association only; he shall subject his accounts to such examination as the House of Delegates may order; he shall annually render an account of his acts and of the state of the funds in his hands."

Amend Chapter VI by deleting Section 4 and 7 in entirety and renumbering Section 6 to Section 4, Section 5, adding a new Section 6, and renumbering 5 to Section 7.

Section 4 (Deleted): The Secretary-Editor of this Association, as Chairman, acting with the Committee on Scientific Work, shall prepare and issue the programs for and attend the meetings of the Association, and shall keep the minutes, or cause them to be kept, of the the proceedings. He shall be Editor-in-Chief of the Jour-

NAL of the Association and shall discharge such other duties as the Trustees shall specifically direct. His honorarium shall be determined by the Board of Trustees.

Section 7 (Deleted): "In the absence of the Secretary, the House of Delegates may elect a Temporary Secretary."

Section 6: The Editor of the JOURNAL shall be appointed by the Board of Trustees. The Editor shall act with the Committee on Scientific Work to prepare and issue programs for the meetings of the Association."

"As the Editor of the JOURNAL, he may select an Editorial Board to be composed of as many members as he deems administratively desirable, subject to the approval of the Board of Trustees. The Editor's honorarium shall be determined by the Board of Trustees."

Amend Chapter VI, Section 7 (formerly Section 7 (formerly Section 5) by substituting the words, "Editor of the JOURNAL" for the words, "Secretary-Editor"; by deleting the sentence, "Should the Executive Director and Councilors deem it wise to organize two or more counties into one society, they shall have the right to take such action and such societies shall be recognized by the State Association." Also amend Section 7 by inserting the sentence, "He shall serve as Recorder for the House of Delegates."

Section 7: "The Board of Trustees shall be empowered to select and remove, without assigning cause, an Executive Director. The Executive Director may or may not be a member of this Association, and may or not be a graduate in medicine. He shall be custodian of all records, books, papers, building and property belonging to the Association, except such property belonging to the **Editor of the** JOURNAL, the Council, the Sections and the various committees, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which may come into his hands; he shall provide for the registration of members and delegates at the Annual Meeting; and upon request, shall transmit a copy of this list to the American Medical Association. Insofar as in his power, he shall use the printed matter, correspondence, and influence of his office to aid the Councilors in the organization of the component societies and in the extension of the power and influence of this Association. He shall visit each councilor district at least once a year and oftener, if advisable, and assist the Councilors in organizing unorganized counties, and use every means possible to promote the interests of the Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. **He shall serve as Recorder for the House of Delegates.** He shall discharge such other duties as the Board of Trustees shall direct. He shall act as business manager of the JOURNAL of the Association, and he shall be the director of all activities in the central office. His salary shall be determined by the Board of Trustees. He shall be required to furnish bond paid for by the Association in the amount designated by the Board of Trustees."

The Reference Committee recommended adoption of Amendment No. 5 to the By-Laws.

ACTION: **A D O P T E D**

By-Laws—Amendment No. 6

Amend Chapter VIII by inserting new Sections 1, 2, 3, 4, 5, 6, and 7 and renumbering old Sections consecutively, but deleting old Section 7, (Previous Section 1 becomes 8, etc.).

Divisions and Committees

Chapter VIII

"Section 1. Divisions: The program of work of the Association shall be conducted by such Divisions and Committees as may be established by the House of Delegates. The program of the Association shall be conducted through the following structure:

(a) Divisions
(b) Standing Committees
(c) Special Committees

"Section 2. The Committees of each Division shall report annually to the House of Delegates and when required, to the Board of Trustees. Each Division shall be composed of the appropriate Committees and Sub-Committees of the Association, and coordinated by a member of the Board of Trustees.

The Divisions of the Association shall be as follows:

1. Division of Scientific Advancement
2. Division of Legislative Affairs
3. Division of Communications and Public Service
4. Division of Socio-Economics—Insurance and Medical Service
5. Division of Governmental Medical Services.

"Section 3. Division on Scientific Advancement—This Division shall consist of the following Committees: Committee on Scientific Work and Postgraduate Education, Cancer Committee, and other appropriate committees or sub-committees that may be established.

"Section 4. Division on Legislative Affairs—The Division shall concern itself with legislative matters on both the state and national level. When legislative questions arise between sessions of the House of Delegates, the appropriate committee of the Division on Legislative Affairs shall have the authority to establish interim policies for the Association, subject to the approval of the Board of Trustees.

This Division shall consist of the Committee on Legislation and Public Policy and other appropriate committees and sub-committees that may be established.

"Section 5. Division on Communications and Public Service: The duties of this Division shall be to conduct such programs and engage in such activities as may result in a proper evaluation by the medical profession of its obligation to the public.

The Division shall consist of the following Committees: Communications and Public Service Committee, Committee on Rural Health, Grievance Committee, and other appropriate committees and sub-committees that may be established.

"Section 6. Division on Socio-Economics —Insurance and Medical Services: This Division shall be concerned with the socio-economic aspects of medical care (excluding legislation). In addition, it shall be the duty of this Division to study, coordinate and make recommendations regarding the various types of insurance programs in which members of the Association may participate or be involved.

This Division shall consist of the following Committees and Sub-Committees: Insurance Committee, Committee on Hospitals, Health Insurance Committee, Tennessee Medical Foundation Committee, and other appropriate committees or subcommittees that may be established.

Section 7. Division on Governmental Medical Services: It shall be the duty of this Division to investigate and make recommendations on activities dealing with the various departments of Public Health and Public Welfare of the State of Tennessee, and those programs and dealings of the Association with governmental medical affairs. This Division shall make a continuing study of programs dealing with governmental medical services.

The Division shall consist of the following Committees: Liaison Committee to Public Health Department, Advisory Committee to the Department of Public Welfare, and other appropriate committees and subcommittees that may be established.

Amend Chapter VIII by inserting a subheading before Section 8 (formerly Section 1) to read: **Standing Committees and Their Duties."**

Amend Chapter VIII, Section 8 (formerly Section 1) Paragraph (a) by changing the names of the following Committees: "A Committee on Scientific Work" to "A Committee on Scientific Work and Postgraduate Education"; "A Committee on Public Policy and Legislation" to "A Committee on Legislation and Public Policy"; and "A Public Service Committee" to "Communications and Public Service Committee". Also amend Section 8 by deleting "A Committee on Postgraduate Medical Education" and by deleting the last paragraph (Paragraph C) in its entirety.

Section 8: Paragraph (2) "(a) The Committees of this Association shall be Standing and Special Committees. The Standing Committees shall be as follows:

1. A Committee on Scientific Work **and Postgraduate Education.**
2. A Committee on **Legislation and Public Policy.**
3. A Liaison Committee to the Public Health Department.
4. A Committee on Memoirs.
5. An Insurance Committee.

6. A Committee on Cancer.
7. A Committee on Hospitals.
8. A Grievance Committee.
9. An Advisory Committee to the State Department of Public Welfare.
10. A **Communications and Public Service** Committee.
11. A Rural Health Committee.
12. A Committee on Health Insurance.
13. A Committee on Tennessee Medical Foundation."

Section 8, Paragraph (c) (Deleted): "Special Committees may be appointed from time to time by the President or the Board of Trustees to carry on special activities."

Amend Chapter VIII, Section 9 (formerly Section 2) by deleting "Secretary-" where "Secretary-Editor" appears and by inserting the words, "of the JOURNAL" after the word "Editor" in Sentence 2. Also amend Sentence 2 by deleting the words, ", and Chairman".

Section 9: "The Committee on Scientific Work shall consist of ten members, nine of whom are appointed. The Editor of the JOURNAL shall be a member of the Committee. It is the duty of this Committee to plan and provide the scientific program for each meeting of this Association. Previous to each Annual Meeting it shall prepare and issue a scientific program which shall be adhered to by the Association as nearly as practicable. It shall also be the duty of this Committee actively to assist the Editor and those acting as the Editorial Board in preparing the scientific portion of the JOURNAL of the Association."

Amend Chapter VIII, Section 10 (formerly Section 3) by changing the name of the Committee on Public Policy and Legislation to Committee on Legislation and Public Policy in Sentence 1; by deleting "Secretary-" where "Secretary-Editor" appears in Sentence 3; and by deleting the words, "and elections" and placing a period following the words, "and national affairs" in Sentence 8.

Section 10: (Sentence 1) "The Committee on Legislation and Public Policy shall consist of nine members, one from each Congressional District of the State.

(Sentence 3) "The Editor will be ex-officio, a member of the committee.

(Sentence 8) "It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall utilize every organized influence of the profession to promote the general influence in local, state, and national affairs."

Amend Chapter VIII, Section 13 (formerly Section 6) Paragraph 1, by deleting the words, "at any Annual Session" at the end of the paragraph and placing a period after the word, "Trustees".

Section 13: "The Committee on Insurance shall consist of three members, one from East, one from Middle, and one from West Tennessee, to be appointed by the Board of Trustees of the Association. One member shall be appointed for one year, one for two years, and one for three years. Thereafter one member shall be appointed annually for a term of three years. Any vacancy shall be filled for any unexpired term that might occur by the Board of Trustees."

Amend Chapter VIII, Section 16 (formerly Section 10) by placing a period after "This Committee shall consist of three members" and deleting, "-one from each Grand Division of the State". Also amend Section 16 by changing the word "which" to "who" in the last sentence.

Section 16: "The Grievance Committee's duties shall be to act as a body to hear any complaints that are registered by patients against any physician at whose hands he thinks he has suffered an injustice. This Committee shall consist of three members. The Committee will be composed of the last three surviving Ex-Presidents. The Ex-President **who** has served on the Committee for the two previous years will serve as Chairman during the third year of his term on the Committee."

Amend Chapter VIII, Section 18 (formerly Section 12) by inserting the words, "Communications and" between the words "The" and "Public" where "the Public Service Committee" appears. Amend Section 18 by adding the sentence, "The Editor will be, ex-officio, a member of this Committee." at the end of Paragraph 1; and amend Section

18 by deleting the last paragraph of the Section.

Section 18: "The **Communications and** Public Service Committee—This Committee shall be appointed by the Board of Trustees and shall consist of one representative from each Councilor District and six members from the state-at-large, two members being appointed from each grand division. **The Editor will be, ex-officio, a member of this Committee.**

"It shall be the duty of the **Communications and** Public Service Committee to enlighten and direct public opinion in regard to the problems of health and medical care, and the promotion of understanding between the public and the medical profession.

"This Committee shall have a full-time Secretary who will be the Public Service Director and who shall be a member of the Central Office staff. He shall be responsible for the conduct of the activities of the Committee throughout the State and he will assist with the other field services of the Association.

"The Public Service Director shall be employed or removed without assignment of cause by the Board of Trustees upon recommendation of the **Communications and** Public Service Committee. His salary shall be determined by the Board of Trustees."

Amend Chapter VIII by adding a new Section 22, with the heading, "Special Committees".

Section 22: "Special Committees shall be established by the Association to conduct specific work and studies. The special committees shall consist of members as appointed by the Board of Trustees or the President and shall be placed in the proper division. The term of offiee shall be designated to the members of such committees upon their appointment.

"The function of special committees is for a specific project as determined by the House of Delegates, the Board of Trustees or the President."

The Reference Committee recommended adoption of Amendment No. 6 to the By-Laws.

ACTION: **A D O P T E D**

By-Laws—Amendment No. 7

Amend Chapter IX, Section 1, Sentence 4 by deleting the words, "the Secretary of".

Section 1: "The annual dues shall be determined by the House of Delegates and shall be levied per capita on the active members of the chartered component societies. The annual dues shall be payable on January 1 of the year for which they are levied, but any component society reporting dues to the Tennessee Medical Association shall be considered delinquent if payment of dues are not made by July 1 of the year for which they are levied. The secretary of each component society shall cause to be collected and shall forward to the offices of the State Association, the dues for its members. Any member whose name has not been reported for enrollment and whose dues for the current year have not been remitted to the State Association on or before July 1 of the year for which they are levied shall stand delinquent until his name is properly reported and his dues for the current year properly remitted. Every active member of the Association shall receive the JOURNAL without cost."

The Reference Committee recommended adoption of Amendment No. 7 to the By-Laws.

ACTION: **A D O P T E D**

By-Laws—Amendment No. 8

Amend Chapter XII, Section 12, by deleting the words, "Secretary of this"; by inserting the words, "of the Component Society" following the words, "The Secretary" and before the word, "shall"; and by inserting the word, "also" following the word, "shall" and before the words, "note any changes-".

Section 12: "The Secretary of each Component Society shall keep a roster of its members and shall furnish an official report of the membership to the Association at least once each year and oftener if circumstances as to membership may require. The Secretary of the Component Society shall also note any changes in the personnel of the membership, with special reference to changes due to death and removal from the district."

The Reference Committee recommended adoption of Amendment No. 8 to the By-Laws.

ACTION: **A D O P T E D**

The report of the Reference Committee on Amendments to the Constitution and By-Laws was adopted as a whole.

(THE CONSTITUTION AND BY-LAWS INCLUDED IN THIS ISSUE OF THE JOURNAL INCLUDES ALL AMENDMENTS TO DATE.)

Report of Reference Committee on Resolutions

C. D. Hawkes, M.D., Chairman

RESOLUTION NO. 1

Compensation of Interns and Residents

By: Harry Moore, M.D., for Committee on Hospitals

"Whereas, the House of Delegates of the American Medical Association has under consideration the matter of remuneration of interns and residents, and

WHEREAS, the Tennessee Medical Association has a vital interest in this problem since many of its members are on teaching hospital staffs and are concerned with intern and resident training; now therefore be it

RESOLVED, that it is the opinion of the Tennessee Medical Association that the problem of compensation for interns and residents is a local problem which must be solved in the locality affected with due attention to economic conditions and the level of training offered, and furthermore, be it

RESOLVED, that the Tennessee Medical Association is opposed to any system or program by which any part of the intern's or resident's salary is paid out of fees collected by the attending physician, and furthermore, be it

RESOLVED, that the delegates of this Society to the American Medical Association introduce a similar resolution in that house embodying these principles."

The Reference Committee on Resolutions recommended adoption of Resolution No. 1.

ACTION: **A D O P T E D**

RESOLUTION NO. 2

Establishment of Committee for Implementation and Expansion of Kerr-Mills Program

By: A. Roy Tyrer, Jr., M.D., Chairman
Public Policy and Legislation Committee
Memphis-Shelby County Medical Society

"Whereas, it is the opinion of the Tennessee Medical Association that implementation and expansion of the Kerr-Mills Law to the fullest extent possible is in the best interest of the public and the medical profession, and

Whereas, constant reappraisal and review of utilization of the provisions of the Kerr-Mills Law, locally and statewide, is imperative to accomplishing full implementation of the law; now therefore be it

RESOLVED, that the Board of Trustees of the TMA be requested to establish a committee whose responsibility shall be implementation and expansion of the Kerr-Mills Law to the fullest extent possible, including periodic review and appraisal of utilization of the provisions of the Kerr-Mills Law, locally and statewide, with periodic communication of this information to the Board of Trustees, the county medical societies, and the Governor's Advisory Committee of TMA."

The Reference Committee recommended adoption of Resolution No. 2.

ACTION: **A D O P T E D**

RESOLUTION NO. 3

Support Passage of H.R. 4511, Amending The Social Security Act

By: Tom E. Nesbitt, M.D., Chairman

Legislative and Public Policy Committee

"Whereas, the Tennessee Medical Association went on record at the Annual Meeting in 1958 as vigorously supporting an amendment to the Social Security Act which would delete that language making it mandatory for a single state agency to administer all programs authorized under the act, and

Whereas, experience in Tennessee and other states has demonstrated that the State Departments of Public Health are better qualified to administer such programs as Medical Aid to the Aged, Welfare Hospital Assistance, and others relating to the health care of the citizens of this and other states, and

Whereas, the Honorable Howard H. Baker, a member of Congress, 2nd Congressional District of Tennessee, has introduced in the Congress H. R. 4511 which would implement TMA policy with respect to deleting the

"single state agency" provision from the Social Security Act, now therefore be it

RESOLVED, that the Tennessee Medical Association go on record as vigorously supporting the passage of H.R. 4511, and be it further

RESOLVED, that the Tennessee Medical Association commend Congressman Baker for his foresight and wisdom in introducing H.R. 4511, and be it further

RESOLVED, that copies of this Resolution be mailed to each member of the Tennessee congressional delegation, and be it further

RESOLVED, that the delegates of the Tennessee Medical Association to the American Medical Association introduce a Resolution in June in the House of Delegates of the American Medical Association to include the contents contained in the Resolves of this Resolution and to urge the American Medical Association to use all of its influence to accomplish the purpose of the Resolution."

The Reference Committee recommended adoption of Resolution No. 3.

ACTION: **A D O P T E D**

RESOLUTION NO. 4

Acceptance by the Tennessee Medical Association of the AMA Statement of Principles on Mental Health

By: Frank H. Luton, M.D., Chairman

Committee on Mental Health

"Whereas, the American Medical Association has stated in brief form its attitude toward the problem of mental health; and

Whereas, this statement has been widely publicized as the opinion of American Medicine toward mental health ('Mental illness is America's most pressing and complex problem. The American Medical Association recognizes the important stake every physician, regardless of type of practice, has in improving our mental health knowledge and resources.'); and

Whereas, the American Medical Association has stated that, 'the physician has much to contribute to the prevention, handling and management of emotional disturbances'; and

Whereas, the American Medical Association states that it will 'be more active in encouraging physicians to become leaders in community planning for mental health'; now therefore be it

RESOLVED, that the Tennessee Medical Association accept the AMA Statement of Principles on Mental Health as a document which it will support."

The Reference Committee recommended adoption of Resolution No. 4.

ACTION: **A D O P T E D**

RESOLUTION NO. 5

Sabin Oral Vaccine Mass Immunizations

By: Robert M. Finks, M.D.

For Nashville Academy of Medicine

"Whereas, poliomyelitis has been substantially reduced in Tennessee by extensive use of Salk vaccine as an immunizing agent, but has not been entirely eliminated, and

Whereas, Sabin oral vaccine is available as a second immunizing agent, and has been recommended by the Surgeon General of the United States Public Health Service and by other competent medical authorities for use in eliminating poliomyelitis, now therefore be it

RESOLVED, that all component medical societies in Tennessee are encouraged to conduct coordinated mass immunization programs as a public service, utilizing Sabin oral vaccine, at the earliest feasible dates compatible with scientific findings and maximum protection of those receiving the vaccine, and be it further

RESOLVED, that the Board of Trustees be requested to coordinate this program on a statewide basis by any feasible means."

The Reference Committee recommended adoption of Resolution No. 5.

ACTION: **A D O P T E D**

RESOLUTION NO. 6

Study of Provisions under Keogh Bill

By: Edward G. Johnson, M.D.

"Whereas, until 1963, it has been impossible for physicians to lay by money, tax-free, for their retirement, and

Whereas, the majority of our members are busy with their practice and have not the time to investigate the avenues now possible for investments that comply with present laws, and

Whereas, trust fund banks, insurance annuity programs, and mutual fund companies for the most part have an expense to the investor, and

Whereas, members of other state and county societies have formed investment groups with definite benefits to their participants, same not being sponsored or a part of any organized medical group, but composed of their members; therefore be it

RESOLVED, that the Board of Trustees of the Tennessee Medical Association appoint a committee to determine means of providing, low-cost, partially tax deductible investment programs for its members; and be it further

RESOLVED, that a report be made to the general membership this year so that members may take advantage of such a program; it being clearly understood that the only part the Tennessee Medical Association plays in this action is one of general information for its members and not any part in organization or administration."

The Reference Committee recommended adoption of Resolution No. 6.

ACTION: **A D O P T E D**

RESOLUTION NO. 7

Consideration of a Special Study Committee on Procedures of House of Delegates

By: J. Paul Baird, M.D.

For Northwest Tenn. Academy of Medicine

"Whereas, many conferences with members of various component societies during the past year have elicited many and various suggestions, and

Whereas, in keeping with the plans of the Board of Trustees long-range project for improvement in the scientific programs of the Annual Meeting, and for the administration of business in the House of Delegates, the members of the Northwest Tennessee Academy of Medicine wish to submit that,

NOW THEREFORE BE IT RESOLVED, that an Advisory Committee be appointed for study and recommendations to be made to the House of Delegates at the April meeting in 1964, for the purpose of facilitating and expediting the business of the House, and

BE IT FURTHER RESOLVED, that the appointments to this Committee should consist of two members of each Grand Division of the State who are not members of the Council or Board of Trustees, except the Speaker of the House is to be seventh appointed member."

The Reference Committee recommended rejection of Resolution No. 7 due to the fact that the Board of Trustees' Long-Range Planning Committee had and was continuing to work on this project and that in additional committee working in this area would be duplicating efforts and was unnecessary. It was recommended that the Long-Range Planning Committee of the Board receive and consider any suggestions offered by members in regard to these matters.

ACTION: **R E J E C T E D**

RESOLUTION NO. 8

TMA Seal

By: J. Malcolm Aste, M.D.,

Speaker of House

"Whereas, in Amendments to the Constitution, previously adopted, the name of the Association now becomes 'Tennessee Medical Association', and

Whereas, Article XII of the Constitution states that 'the Association shall have a common seal, with the power to break, change or renew the same at pleasure by action of the House of Delegates', now therefore be it

RESOLVED, that the Board of Trustees of the Tennessee Medical Association be authorized by this House of Delegates to develop a new seal of appropriate design to include the name of the 'Tennessee Medical Association'.

The Reference Committee recommended adoption of Resolution No. 8.

ACTION: **A D O P T E D**

RESOLUTION NO. 9

Use of Hospital and/or Emergency Facilities for the Corporate Practice of Medicine

"Whereas, the corporate practice of medicine is unlawful according to the statutes of the State of Tennessee, and

Whereas, the relationship of physicians and hospitals are clearly defined by the

Code of Ethics of the American Medical Association, and

Whereas, the House of Delegates of the Tennessee Medical Association has passed Resolution No. 3 in 1960 reaffirming the above principles, now therefore be it

RESOLVED, that any physician employed by a hospital or institution for the purposes of rendering medcial care in its outpatient or emergency facilities in which a fee for service is collected by the hospital or institution is in violation of the above named statutes of the State of Tennessee and of the Code of Ethics of the American Medical Association, and be it further

RESOLVED, that the Tennessee Medical Association is opposed to any system or program by which a hospital or institution engages in the corporate practice of medicine by utilizing the above-mentioned facilities or an employed physician for the handling of such cases in such facilities of any hospital or emergency area, and be it further

RESOLVED, that a copy of this resolution be transmitted to every component medical society in the State of Tennessee."

The Reference Committee recommended adoption of Resolution No. 9.

ACTION: **A D O P T E D**

The report of the Reference Committee on Resolutions was adopted as a whole.

Report of Reference Committee on Reports of Officers

EDWARD G. JOHNSON, M.D., Chairman

Report of The President

"This report was carefully reviewed and serves to make us more cognizant of the time spent, judgement, exercise and the devotion to duty by our President. We heartily endorse the idea of the positive approach to all groups, lay and professional, as indicated by Dr. Sheridan.

"On page 5 of his report, the recommendation that some thought be given to electing the three vice-presidents as 'vice presidents elect' in a manner similar to that which the President is chosen is heartily endorsed by this committee.

"The responsibility of representing the medical profession in our national and state capitols in legislative matters, we feel was borne well, and commend him for his actions.

"Practically all of the activities of the year's work in our medical organization is covered in this report and the Reference Committee urges each of the delegates to peruse it thoroughly. It has far-reaching meanings and it is an inspiration to see the progress indicated in this report.

"Mr. Speaker, the Reference Committee on Reports of Officers moves that Dr. Sheridan's report be adopted."

ACTION: **A D O P T E D**

Report of Secretary-Editor

"Our Committee recognizes the fact that a tremendous amount of detailed and careful work is done by Dr. Kampmeier and his associates in preparing the JOURNAL of our State Association. We would like to again emphasize that the President's Page, the Editorial Pages, Special Articles and the Yellow Page Inserts are a reflection of current trends in medicine and would urge all of the members of the TMA to review these each month.

"Mr. Speaker, our committee would like to move the adoption of this report."

ACTION: **A D O P T E D**

Report of the Chairman of Board of Trustees and Treasurer

"Our Committee has reviewed the excellent concise, but yet detailed report of Dr. Finks covering the activities of the Board of Trustees for 1962. We wish to commend Dr. Finks and all the members of the Board for their completeness and intelligent handling of the many problems that necessarily came to their attention during the year. It would be needless repetition to go over each of the items discussed, but on page 3 under 'health legislation,' paragraph 2, the Reference Committee urges that the consulting committee established with the Governor and his Commissioners on health matters be implemented as much as possible to effect a more efficient liaison with the legislature so that any matter concerning the medical profession may be brought to the attention of the membership with greater expediency. We have examined the financial statement attached, find them in order, and express appreciation for the astute way in which the business end of our State Association is managed.

"Mr. Speaker, the Reference Committee

on Officers' Reports moves the adoption of this report."
ACTION: **A D O P T E D**

Report of the Council

"Our Committee felt by and large that the members of the Council do some of the hardest work with the least recognition of any of our officers in the Society. We feel they should be recognized for their work and hereby commend them for their actions.

"One of the delegates, with the approval of the Chairman of the Council, Dr. Frank Moore, suggested deletion of the third sentence, paragraph three, page 2 of the report of the Council which reads: 'On the other hand, we have some small hospitals with men qualified as general practitioners doing major surgery in what amounts to a captive practice,' and substitute the following, 'On the other hand, we have some small hospitals staffed by doctors who are inadequately trained or poorly qualified by experience doing surgery, electrocardiography, radiography, etc. on what amounts to captive patients.'

"Mr. Chairman, with the substitution of the above sentence, the Committee recommends the acceptance of this report and so move.
ACTION: **A D O P T E D**

Report of the Sub-Committee of the Council on Corporate Practice of Medicine

"The Reference Committee has spent considerable time in reviewing this report and listened to nine physicians including Council members, radiologists, pathologists and other interested doctors concerning this very pressing problem. From the testimony given, it is apparent that some slight progress has been made but much more study and work needs to be done to confirm the Council's stand that certain steps be taken in order to insure that physician members of TMA can work in their chosen fields within the bounds of ethics prescribed for the profession and within the legal requirements covering the corporate practice of medicine. The Committee heartily endorses the formation of the Liaison Committee as suggested by Dr. Harry Moore in the report of the Committee on Hospitals to implement further study and necessary action on this matter.

"Mr. Speaker, the Committee moves that this report be adopted."
ACTION: **A D O P T E D**

Report of the Executive Director

"The Reference Committee wishes to commend Mr. Ballentine again for his excellent report covering the administrative activities of the TMA. The report speaks for itself and the Committee would again like to suggest that this annual report of the Executive Director be published in the JOURNAL of the Tennessee Medical Association.

"Mr. Speaker, the Committee moves that this report be adopted."
ACTION: **A D O P T E D**

The Report of the Reference Committee on Reports of Officers was adopted as a whole.

The Speaker announced that the next order of business would be to hear the Report of the Reference Committee on Reports of Standing Committees—Reference Committee A.

Report of Reference Committee on Reports of Standing Committees

J. CASH KING, M.D., Chairman
(Report made by DR. J. J. CALLOWAY)

The Reference Committee moved the adoption of reports of the following Standing Committees:

1. Committee on Scientific Work
2. Committee on Hospitals
3. Committee on Legislation and Public Policy
4. Liaison Committee to the Public Health Department
5. Insurance Committee
6. Committee on Postgraduate Education
7. Memoirs Committee
8. Committee on Health Insurance
9. Advisory Committee to the State Department of Public Welfare
10. Public Service Committee
11. Grievance Committee
12. Rural Health Committee

ACTION: **A D O P T E D**

The Reference Committee recommended that the Committee on Cancer not be accepted due to insufficient information and

questions raised before the Reference Committee. Inasmuch as there were no witnesses appearing in behalf of the committee, the Reference Committee moved that the Committee on Cancer report not be adopted.

COMMENTS: The Reference Committee on Reports of Standing Committees recognized some problems in the study of reports. It was found that over-lapping of the functions of many of the committees existed and that the scope of work of each of the Standing Committees needed clarification. Secondly, the Reference Committee noted that reports of various Standing Committees with over-lapping functions need to be circulated during the course of the year so that each committee's actions may be known by the other committee. Also, it was pointed out that the Reference Committee, in order to function properly, needed the Chairman or other designated representatives from such committees to appear before it during the hearings for clarifications. It was recommended that in the future, the Reference Committee meetings be scheduled so that the Chairman of each committee be given ten minutes to clarify his report and that the Reference Committees not be required to review and make recommendations of such reports unless the Chairman or his designated representative appears before the Reference Committee.

The report of the Reference Committee on Reports of Standing Committees was adopted as a whole.

The next order of business was the Report of the Reference Committee on reports of Special Committees—Reference Committee B.

Report of Reference Committee on Reports of Special Committees

GEORGE L. SMITH, M.D., Chairman

The Reference Committee recommended that the following special reports be adopted.

1. Consultative Committee on the Administration of Prepaid Medical Care Plans.
   (The Reference Committee moved adoption and recommended that a continuing study of the cost of hospital care of patients as outlined in the report be conducted in cooperation with the Board of Trustees and that the activities of the committee be coordinated with other related committees of the Association working on these matters.)
2. Disaster Planning Committee
3. Committee on Occupational Health
4. Liaison Committee to the United Mine Workers of America
5. Advisory Committee to the Woman's Auxiliary
6. Committee on Blood Banks
7. Committee on Mental Health
8. Committee on Health Project Contest
9. Committee on Legal Relations and Interprofessional Code
10. Committee on Sight Conservation

10-B. Supplemental Report of Committee on Sight Conservation
   (The Reference Committee recommended that the appropriate group of TMA take action on the recommendations to study activities of TMA in the General Assembly, the hiring of an attorney as a lobbyist during the Legislature, tabulation of voting measures by representatives and senators for general distribution to the membership, and remuneration of Association employees.)

11. Tennessee Committee for American Medical Association Education and Research Foundation
12. Committee on Youth and Education
13. Liaison Committee to Medical Schools in Tennessee

(Special Reports)

1. Woman's Auxiliary to the Tennessee Medical Association Report
2. Report of Tennessee Delegation to AMA House of Delegates.

ACTION: **ALL OF THE ABOVE REPORTS WERE ADOPTED.**

The Report of the Reference Committee on Reports of Special Committees was adopted as a whole.

Meeting in 1964

The Speaker stated that invitations to conduct the 1964 Annual Meeting would be received.

Dr. M. F. Langston, Chattanooga, invited

the TMA to conduct the meeting in Chattanooga with the Chattanooga-Hamilton County Medical Society serving as the host society.

Dr. Harold B. Boyd, Memphis, offered an invitation from the Memphis-Shelby County Medical Society to conduct the meeting in Memphis.

Dr. Dana Nance, Oak Ridge, urged that Gatlinburg be considered for the meeting. He suggested that the policy be changed wherein the meeting would be conducted each year in Gatlinburg.

Dr. Harold Boyd pointed out that it would be advantageous to conduct the Annual Meeting in the home city where the President resides, and that West Tennessee would be the most feasible location for the 1964 session.

The House of Delegates voted to conduct the 1964 Annual Meeting in Memphis with headquarters at the Peabody Hotel. There were no steps taken to schedule the 1965 meeting.

The Speaker called for any other old or new business to be presented. There being none, the House of Delegates of the Tennessee Medical Association adjourned at 11:00 A.M. sine die.

J. E. Ballentine, Executive Director

Abstract of Minutes of Council Meeting Tennessee Medical Association Andrew Johnson Hotel—Knoxville—April 7-9, 1963

The Council of the Tennessee Medical Association convened at 9:45 A.M., Sunday, April 7, 1963, in the Andrew Johnson Hotel, Knoxville, with the Chairman, Dr. Frank Moore, Jackson, presiding.

Councilors present were:

J. O. Hale, Johnson City—First District
B. M. Overholt, Knoxville—Second District
M. F. Langston, Chattanooga—Third District
Thurman Shipley, Cookeville—Fourth District
Coulter S. Young, Manchester—Fifth District
Laurence A. Grossman, Nashville—Sixth District
Wm. K. Owen, Pulaski—Seventh District
Frank A. Moore, Jackson—Eighth District
R. David Taylor, Dyersburg—Ninth District
Francis H. Cole, Memphis—Tenth District

The Chairman called the meeting to order for the purpose of hearing reports and to receive the comments of the President, Dr. Wm. J. Sheridan.

Highlights of the meeting were: (1) Dr. Coulter Young brought the problem of narcotics before the Council for discussion. Other problem areas included alcoholic, barbiturate and narcotic addictions. Dr. Grossman detailed the manner in which a committee of the Nashville Academy of Medicine had handled such problems.

(2) Dr. David Taylor requested that all Councilors should try to consolidate the smaller county medical societies in their districts into district organizations, and to try and visit each society during the year.

(3) Dr. Frank Moore read the report of the Chairman to be made to the House of Delegates. The report was approved for presentation. Dr. Cole read a report from the Sub-Committee on Corporate Practice and this report was accepted.

(4) Dr. Wm. J. Sheridan briefly discussed medical ethics.

Wm. K. Owen, M.D.
Secretary

Meeting of the Council April 9, 1963

The Council of the Tennessee Medical Association met at 11:00 A.M. in the Andrew Johnson Hotel, Knoxville on April 9, 1963.

Councilors present were:

J. O. Hale, Johnson City—First District
M. F. Langston, Chattanooga—Third District
Coulter S. Young, Manchester—Fifth District

Harry T. Moore, Jr., Nashville—Sixth District
Wm. K. Owen, Pulaski—Seventh District
Oscar McCallum, Henderson—Eighth District
R. David Taylor, Dyersburg—Ninth District
Francis Cole, Memphis—Tenth District

Councilors absent were:

Kenneth Haile, Cookeville—Fourth District
B. M. Overholt, Knoxville—Second District

Others present were:

Thurman Shipley, Cookeville
Frank Moore, Jackson

This being an organizational meeting, elections were held and Dr. Francis Cole was elected Chairman of the Council, with Dr. Oscar McCallum elected as Secretary. The meeting was called to order by the new Chairman, Dr. Cole.

Highlights of the meeting were:

(1) Dr. Frank Moore presented a letter he had written to Dr. Bland W. Cannon, Memphis, President of TMA, relative to the continuing study of corporate practice of Medicine.

(2) A resolution citing Dr. Frank Moore for outstanding service was introduced by Dr. Langston and approved. Following this action, a brief review of the work and duties of the Council was presented by Dr. Cole for the benefit of newly elected councilors.

(3) Dr. Taylor presented the subject of practice of medicine by unqualified physicians in the state. It was recommended that each Councilor conduct an informal review of his district regarding the physicians who are not members of the Medical Association and present a report at the next meeting of the Council. It was also suggested that the Chairman obtain the aid of Dr. Cannon, TMA President, in a letter requesting services of the Council for the appraisal of the situation that exists as to the number of physicians practicing in the state who are not members of their respective county and state organizations.

(4) A recommendation was made by Dr. Harry Moore that a committee be appointed to mediate differences between doctors and hospitals. However, it was deemed advisable that the Councilor of each district should assume this responsibility. It was also determined that this policy should be made known to respective hospitals.

(5) Dr. Owen suggested that the duties of the Council of TMA be included in the JOURNAL along with the statement that the assistance of the councilors may be requested in any situation that seemed to merit mediation and advice.

OSCAR MCCALLUM, M.D.
Secretary

Abstract of Minutes of the Second Quarter Meeting of the Board of Trustees, Tennessee Medical Association Andrew Johnson Hotel, Knoxville, Tennessee Wednesday, April 10, 1963—9:00 A.M.

The Board of Trustees of the Tennessee Medical Association convened for the regular second quarterly meeting, following the TMA Annual Meeting. The session began at 9:00 A.M., April 10, 1963, in the Andrew Johnson Hotel at Knoxville.

Members of the Board present were:

Robert M. Finks, Nashville
John H. Burkhart, Knoxville
Bland W. Cannon, Memphis
E. L. Caudill, Jr., Elizabethton
C. D. Hawkes, Memphis
G. Baker Hubbard, Jackson
Joseph W. Johnson, Jr., Chattanooga
R. H. Kampmeier, Nashville
K. M. Kressenberg, Pulaski
Wm. J. Sheridan, Chattanooga

Members of the Board absent:

J. Malcolm Aste, Memphis

Others present were:

Tom E. Nesbitt, Nashville, Vice-Speaker, House of Delegates

Mr. J. E. Ballentine, Executive Director, TMA

Mr. Hadley Williams, Public Service Director, TMA

Mrs. Jean Ragsdale, Secretary, TMA

The meeting of the Board was called to order by Dr. Finks at 9:00 A.M.

I. OLD BUSINESS:

(a) **MOTION:** A motion was made by Dr. Burkhart, and seconded, that the Trustees approve the minutes of the January 13-14, 1963, meeting as recorded and mailed to members of the Board. **The motion was adopted.**

II. NEW BUSINESS:

1. Organization of the Board

Dr. Cannon nominated Dr. R. M. Finks, Nashville, for Chairman of the Board and Treasurer. The motion was seconded **and Dr. Finks was elected by acclamation.**

Dr. Cannon nominated Dr. Joseph W. Johnson, Jr., Chattanooga, as Vice-Chairman of the Board. The motion was seconded, and **Dr. Johnson was elected by acclamation.**

The following members were nominated and elected to compose the Executive Committee of the Board. They were: Drs. R. H. Kampmeier, R. M. Finks, E. L. Caudill, Joseph W. Johnson and J. Malcolm Aste.

A motion was made and seconded that Drs. John H. Burkhart, Baker Hubbard and K. M. Kressenberg be named to the Long-Range Planning Committee of the Board. **The motion was adopted.**

A motion was made and seconded that Drs. R. M. Finks, Bland W. Cannon and C. D. Hawkes be named to comprise the Finance Committee of the Board. **The motion was adopted.**

2. Dr. Frank Luton, Chairman of the Mental Health Committee of TMA, appeared before the Board to outline plans of the Steering Committee on the proposed Congress on Mental Health in Tennessee, to be presented during the fall of 1963. He itemized the required expenses for the Congress and stated that a maximum of $3,600 would be necessary. It was determined that $500 would be appropriated by the Tennessee Mental Health Association for this purpose and Dr. Luton requested that TMA provide the balance of $3,100 for this project.

It was recommended that Dr. Luton's request be granted by the Board of Trustees. The Board appointed Dr. Joseph W. Johnson, Jr. of Chattanooga as co-chairman of the Committee on Mental Health to share the responsibility of the Congress with Dr. Luton. Also, Dr. E. L. Caudill, Elizabethton, was appointed a member of the committee to assist Dr. Johnson in the administration of funds provided for this project by TMA.

To keep within previous policy adopted, Dr. Kampmeier recommended that the Board go on record that if the Mental Health Congress accepted funds from any other firm or organization, it should be accepted in the name of the Congress and should not set a precedent or change the policy of TMA in this regard.

3. The Board completed the appointments to the Standing and Special Committees of the Association for the year 1963-64.

4. In keeping with Resolution 2, adopted by the House of Delegates on April 9th, the Board was directed to establish a committee whose responsibility would be the implementation and expansion of the Kerr-Mills Law to the fullest extent possible, including periodic review and appraisal of utilization of the provisions of the Kerr-Mills Program, locally and statewide, with periodic communication to the Board, County Medical Societies and the Governor's Advisory Committee of TMA.

It was the opinion of Board members that such a committee should be established to carry out the provisions of the resolution and to make the provisions of the program in Tennessee known to the public, the medical profession, the AMA, and particularly to national and state representatives in Congress and the Tennessee General Assembly. The Board recognized certain overlapping of activities of other committees, particularly the Legislative, Public Service and Advisory Committee to the Governor. The following physicians were appointed to compose the Committee on Implementation and Expansion of the Kerr-Mills Law:

Dr. K. M. Kressenberg, Pulaski, Chairman

Dr. R. A. Calandruccio, Memphis

Dr. W. O. Vaughan, Nashville

Dr. Tom E. Nesbitt, Nashville

Dr. A. Roy Tyrer, Memphis
Dr. Richard C. Sexton, Knoxville
Dr. O. M. McCallum, Henderson
Dr. Ed Brading, Johnson City
Dr. Wm. A. Hensley, Cookeville
Dr. Warren Henry, Chattanooga

The Committee was designated as a Board of Trustees Committee with instructions to report progress and actions to the Board.

5. The House of Delegates adopted Resolution No. 6 which directed the Board to appoint a Committee to determine means of providing low-cost, partially tax deductible investment programs for members of the Association. This matter was discussed in detail, after which the Board referred Resolution No. 6 to the Insurance Committee of TMA for implementation.

6. Due to a resignation on the Board of Directors of "IMPACT" (Independent Medicine's Political Action Committee—Tennessee), the Board of Trustees appointed Dr. B. G. Mitchell of Memphis as a replacement for Dr. Roland Myers, Memphis.

7. The House of Delegates on April 9th adopted an amendment to the By-Laws which established Divisions to be composed of appropriate committees and sub-committees with each Division to be coordinated by a member of the Board of Trustees. The Board appointed the following members as coordinators from the Board to act as heads of the five newly established divisions within the Association's organizational plan. These were:

Dr. E. L. Caudill—Division of Scientific Advancement
Dr. K. M. Kressenberg—Division of Legislative Affairs
Dr. C. D. Hawkes—Division of Communications and Public Service
Dr. Joseph W. Johnson, Jr.—Division of Socio-Economics-Insurance-Medical Service
Dr. Baker Hubbard—Division of Governmental Medical Services

8. A recommendation in the report of the Committee on Hospitals adopted by the House of Delegates, to name a Consultative Committee of Purveyors, Providers and Payers of Health Care, was discussed.

The Board determined that a letter should be written to the Tennessee Hospital Association, the Health Insurance Council and other involved groups stating that the Board of Trustees had appointed two members to this committee and requesting these groups to appoint members from their organizations. The Trustees named Dr. B. K. Hibbett, Chairman of the Health Insurance Committee, and Dr. Robert Miles, Chairman of the Committee on Hospitals, as TMA representatives to such a consultative committee. Two representatives were requested to be appointed by the Tennessee Hospital Association, two by the Health Insurance Council, one by the Tennessee Hospital Service Association, and one by the Memphis Hospital Service & Surgical Association. This committee will be a representative committee to act in a liaison capacity with the organizations named.

9. Resolution No. 5, adopted by the House of Delegates on April 9th, resolved that "all component medical societies in Tennessee are encouraged to conduct coordinated mass immunization programs as a public service, utilizing Sabin oral vaccine, at the earliest feasible dates compatible with scientific findings and maximum protection of those receiving the vaccine; and that the Board of Trustees be requested to coordinate this program on a statewide basis by any feasible means."

The Board of Trustees agreed that this was already a project of the Communications and Public Service Committee and any further action should be included in the program of that committee.

10. In keeping with the revised Constitution and By-Laws, approved by the House of Delegates, the Board appointed the Editor of the JOURNAL. Dr. R. H. Kampmeier, present Editor of the JOURNAL, was elected by acclamation.

11. The Board discussed the continued work of the Consultative Committee on Administration of Prepaid Medical Care Plans. It was the opinion of the Board that the information obtained by the survey conducted by this committee was valuable. The duties of the committee were discussed with the results of the survey also being presented. It was the final opinion of the Board that the Consultative Committee should be continued to assist local utilization committees. It was also suggested that the Coun-

cil should be responsible for obtaining reports from hospitals each year and report to the Board of Trustees. A motion was adopted that the Council accept the responsibility of seeing that each medical society has a functioning utilization committee.

12. Since amendments to the Constitution changing the name of the Association to Tennessee Medical Association had been adopted, it was pointed out that the Association's Seal should be changed to omit the word, "state." The Executive Director was instructed to present designs of an appropriate seal for the consideration of the Board of Trustees at the next quarterly meeting.

13. A letter from the Student American Medical Association setting forth the purposes and aims of the Association and a request for the Tennessee Medical Association to become a charter sustaining member of that organization was presented. This involved funds and the matter was referred to the Finance Committee of the Board.

14. The Board of Trustees agreed to a letter of intent to continue the VA Hometown Care Program, now in effect. This program has been in effect for a number of years and since it is voluntary on the part of participating physicians, the VA Hometown Care agreement was extended for another year.

15. Dr. Kampmeier, Chairman of the Committee on Scientific Work, outlined suggestions for the changes proposed in the annual meeting scientific program. He explained the study being made concerning the scientific program and the questionnaire forwarded to officers of the specialty societies was being studied and a report would be made.

16. The Board approved the First Quarter Financial Statement for 1963.

17. The Executive Director explained the problem of delegates' informational kits getting into the hands of the press. It was pointed out that it was TMA policy to hold a conference after each meeting of the House to decide on the information to be released to the press, but that this was useless when delegates thoughtlessly handed information to the press from the kits. It was recommended that all members of the House of Delegates in the future be urged to not let classified information contained in the kits get into the hands of members of the news media, without approval.

18. The Board approved a letter from the Chairman of the Council asking the Board's recommendation as to continuing the study of corporate practice of medicine. It was the Board's opinion that the study should be continued and the Chairman was so notified.

19. Dr. Hawkes discussed a resolution that had been rejected by the House of Delegates concerning a study to be made on methods of streamlining the business of the House of Delegates. Dr. John Burkhart reported that this was a project of the Board's Long-Range Planning Committee and he stated that several suggestions had been received and were under consideration by the committee.

The Board discussed and acted upon other routine matters of administration.

The final business of the Board was conducted in Executive Session where salary ranges of staff personnel were studied.

There being no further business, the Board adjourned at 11:50 A.M.

R. M. Finks, M.D., Chairman

J. E. Ballentine, Executive Director

President's Page



DR. CANNON

It is a rare citizen who understands our national program of Social Security, where it is going, and how it is going to get there. Somewhere there may be a taxpayer or a social security recipient who professes to understand the complicated income, outgo and grand design of the system. But even such a person may need to be de-educated and re-educated. For the truth is: Never has an economic system so powerful as social security affected so many and been understood by so few.

Spokesmen for social security have tipped off what they have in mind for the future and some of these are—liberalization of the disability program—major elaborations in the public assistance program—*FREE MEDICAL CARE*—physical and vocational rehabilitation and many others.

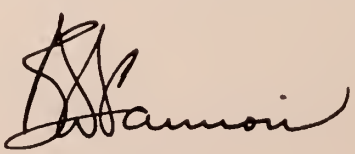
When the new Congress convened in Washington, we faced for the third time in the past six years, a determined, well organized drive for health care benefits under Social Security. Make no mistake: Those who would politicalize the health problem of our aged feel themselves stronger than ever before, more hopeful of victory. Their campaign to impose Medicare upon the American people will be carried forward with all of the resources, all of the political ingenuity and all of the promotional pressure (paid for with your hard earned tax dollars) that can be brought to bear. Twice rebuffed, they will hit back harder than ever.

I would like to dispel the idea, artfully and cynically disseminated by Medicare propagandists, humanness and a decent concern for the aged are twin discoveries of the New Frontier. These political medicine men would have the public believe that anyone who opposes them does so out of a callous disregard for the health needs of our aged citizens. Since this issue is to be enjoined again in the 88th Congress, let's look at the facts and consider our course of action.

A national legislative program for county medical societies has been devised to offset the efforts to dupe the public. The program is called "Operation Hometown." The program provides the tools and techniques for *YOUR* County Medical Society to present medicine's point of view, to stimulate every voter to let his Congressman know that Medicare is a costly concoction of bureaucracy and bad medicine. TMA's Communications and Public Service Committee, together with our Executive Staff is presenting this program to all county societies in the state through fourteen regional group meetings.

I hope that every physician read a statewide news release made by your President on April 18th to all weekly and daily newspapers in the state, relating to the cost of the King-Anderson Bill (H.R. 3920). It has been estimated that $21,000,000 is the tax increase for Tennessee citizens if this issue is enacted. It would cost our fellow citizens and employers an additional $55 per year in Social Security taxes, and up the tax base to $5,200. This proposal, financed by an inreased social security tax, would provide benefits for all of the aged regardless of need. By helping those who need help through the Kerr-Mills Program and letting those who can take care of themselves do so, the taxpayers in Tennessee can be saved millions of dollars a year.

Time, effort and planning must be accomplished if "Operation Hometown" is to be effective.



President

(Written by Executive Director)

THE JOURNAL
OF THE
TENNESSEE MEDICAL ASSOCIATION

Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor, 8210 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK AND POST GRADUATE EDUCATION

R. H. KAMPMEIER, M.D., Chairman
W. POWELL HUTCHERSON, M.D., Chattanooga
ROBERT P. McBURNEY, M.D., Memphis
EUGENE J. SPIOTTA, M.D., Memphis
(Specialty Society Representatives to be named)

JUNE, 1963

EDITORIAL

"BRITISH SOCIALIZED MEDICINE"

The National Health Service of Great Britain has had much discussion in this country as an example of frankly admitted socialized medicine. Everyone recognzies that no one social or political system is ever transplanted full blown into another social or political climate. This is so obvious that proponents of federalization of medicine in this country should drop the worn-out cliche that we would never have the British system here. Granted! However, of the many systems of socialized medicine in the world, it seems logical that the British system would offer the best possible yardstick for comparative purposes to whatever is proposed for us, because of a common heritage in social and political thought or philosophy.

The title of this editorial was the title of a *White Paper* broadcast on NBC Television on March 31. A critique was written by Dr. John Reckless, a member of the faculty of Duke University Medical Center, Durham, and has been made available by the A.M.A. Dr. Reckless was a practitioner under the British Health Service,—he should know whereof he speaks. This leads to another truism—in such an emotionally charged area as socialized medicine one cannot be unbiased. Therefore, Dr. Reckless no doubt will be labeled as a disgruntled Britisher by some American sociologists and others who point to the advantages of the system, and who so often quote statistics and opinions from England. One must recognize there will never be a unanimity of opinion on the topic of socialized medicine. Repeatedly Dr. Reckless points out that the doctors who appeared on the telecast were obviously on the *pro* side of the system, otherwise they would not have been selected for the tape recording. A *White Paper* has no place for the *con* comments. The *pro* side must be presented even if palpably dishonest or "slanted" in some statements.

As in most "do-good" endeavors the human race is endowed by unrealistic idealists with attributes which are just not true. During the War years Lord Beveridge who planned the Service based it on three assumptions. Dr. Reckless may be quoted on these as follows:—

"The first of these related to self-discipline on the part of the patient so that he would not abuse the services made available to him. The second condition was that the physician would be in a position to deal severely with patients who attempted to abuse the system, and thirdly, that the patient should pay a utilization fee at the time that he sought the professional service from the physician. It was thought that the payment of a fee by a patient at the time of seeking aid, even if this were a nominal fee, would cut down the tendency for patients to make use of a service unnecessarily because it appeared to be 'free.' The commentator also did not point out that it was felt that with an improvement in the standards of care available, sickness and ill health would tend to reduce and that in the long run rather than the scheme becoming more expensive with inflation, it would tend to hold its own, or even reduce in cost since chronic illness would diminish as a consequence of a more available system of medical care."

To anyone who has dealt with patients in practice, and especially in an outpatient service practice, these assumptions are ri-

diculous. This emphasizes so clearly what has been said upon these pages time and again,—things medical (even if political) should be left to the *only* ones who know,—doctors.

So much was covered in the *White Paper* it cannot be detailed here. Again *with bias*, a few things seem worthy of comment. The general practitioner speaking for the Service commented that now he did not have to buy "fancy equipment" to attract patients! His statistics are interesting—he sees 70 patients a day, requiring 2 minutes for each, a "refill" prescription takes only 20 seconds, and that only one in fifteen (3 or 4 out of the 70) need an examination which he says takes about 5 minutes. He commented that $3.00 annually is the capitation fee for each patient and is adequate. He noted the change in the policy of the Service requiring a fee for drugs initially available free.

Dr. Reckless commented that after three years' experience with the Service it became necessary to charge for drugs contrary to a great outcry by the voters. He says the government charges more than the actual cost of drugs in some instances; that there is no provision for drugs for *old age pensioners* and people of low means, nor for indigents,—all of whom have only one alternative—to apply for *indigent welfare aid* for cash to pay for drugs. *(Page Kerr-Mills!* Editor.) Dr. Reckless, furthermore says that the state, since it pays for drugs retains the right to control expenditures. Prescriptions of each doctor go to a central clearing house for averaging his prescriptions for the year, and "where a physician's total is found to be higher than that of the average for his area, he can be required to pay for any over-prescribing."

The Minister of Health, on the program, in describing the dichotomy of his function, pointed out his job was to provide a framework within which the doctor can practice, that he had no responsibility for the doctor's qualifications, but only which qualifications were necessary to practice in the National Health Service. It was said, since it is a political system, it must be in lay hands!

In answer to the advantages of specialists' care and hospitalization, Dr. Reckless, as commentator, makes points we have made on these pages after conversations with taxi drivers, hotel maids and others in London. The general practitioner has no access to hospitals. Patients must be transferred to strange doctors if hospitalization is needed, and that the waiting lists for hospitalization became horrendous when everything is "free." Dr. Reckless points out that since 1948, 450,000 are on the waiting lists for hospitalization at any one time. As high as 20% of these will need to await admission for from 6 months to 2 years. What does this mean in terms of unsuspected cancer, tuberculosis, etc.! The commentator at Duke says the advantage of "free" consultants is declining since 1957 for reasons of economy, and by the fact that one-quarter to one-third of the graduates from British medical schools emigrated from the country between 1956 and 1961. The whole system would have collapsed, he says, except for the fact that 40% of the doctors in the peripheral hospitals have migrated from overseas—from other of the Commonwealth countries and especially the African colonies. (Over 600 doctors left Great Britain by the sea-lanes alone last year.)

Of significance is the statement that for hospitalization alone, 15 years after the beginning of the National Health Service, it is costing the state over one and a half billion dollars—twice the amount in 1948. (Some of our Congressmen have pointed out that the estimated costs of the King-Anderson legislation are unrealistically low.) Another item of extreme interest, and upon which an editorial appeared on these pages some time ago, is that the subscribers to the British United Providence Association, a private insurance company for prepayment voluntary health insurance has grown from a handful of subscribers in 1950 to over a million today—*why!* This is of interest since, in the *White Paper,* an orthopedist describes the good care provided by the National Health Service, equal to that for the private patient; that the patient under the Service gets the medical care "that he needs, not what he wants." However, the telecast let one item slip in, that "the National Health Service patient signs a release at the time of admission to the hospital for operation stating that he is willing to accept the services of any surgeon as-

signed by the Chief of Service." *Where is the much touted freedom of choice of doctors under the Service!*

Then, apparently, the telecast considered opinions of laymen and doctors as to the acceptance of the National Health Service. Dr. Reckless says, even though 80% of the population (by polls) like the Service—"popularity is not the best criterion for the standard of medical care. Nor is the patient in a position of being able to evaluate in an objective way how effective the system is. As a political plum it has, however, proved a real bonanza for the politician."

It seems the telecast ended in some discussion between British and Americans and it was agreed the National Health Service satisfied the needs for the British people and that America must work out its problems within its own framework of medical practice and economics.

We have our unrealistic idealists both within and without the profession who would like to see government get more deeply involved in medical care. That further steps will be taken is probable. For years these pages have pointed to the dangers to *good* medical care of the primrose path to the governmental medicine of the politician and ivory tower idealist. In any governmental system the professional man will need to pay the piper—the one who pays the bills. Basically, the taxpayer cannot quarrel with the proper and conscientious stewardship of those who spend the taxpayer's money, whether it is spent upon research grants, for prescriptions as in Great Britain, or for fees here under certain federal fees for service. This is proper—we should expect an accounting. But in this accounting bureaucracy, by its very nature, demands control. This is why we must be opposed to that legislation which would by its implementation imperil the intangibles of *good* medical care, as well as doctor-patient relationships which are the key to good medical care.

R. H. K.

DEATHS

Dr. Michael M. Marolla, 58, Memphis, died April 25th at Kennedy Hospital following a heart attack.

Dr. William C. Sanford, 80, Memphis, died May 2nd at his home.

Dr. Owen Scott Deathridge, Sr., 79, Nashville, died on April 12th at a Nashville hospital.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Consolidated Medical Assembly of West Tennessee

The Society's regular monthly meeting was held May 7 at the New Southern Hotel. The meeting was preceded by dinner and a large representation of physician members attended.

The program consisted of a report from the Society's officers and delegates to the Tennessee Medical Association's House of Delegates. Speakers included Dr. G. Baker Hubbard who was in charge of the program, Dr. Frank Moore, Dr. Oscar McCallum, Dr. G. H. Berryhill and Dr. Julian K. Welch, Jr. Mr. Jack Ballentine, Executive Director of the Tennessee Medical Association, participated in the program giving a report on the activities of the Association.

Knoxville Academy of Medicine

The Society's monthly meeting was held in the Academy of Medicine Building on the evening of May 14. The program theme was "Tennessee Doctors in Algeria." Dr. Paul Spray presented a program by the physicians who participated in a mission to Algeria. Dr. John H. Dougherty presented a paper on a urologic problem.

Chattanooga-Hamilton County Medical Society

The annual dinner for members of the Chattanooga-Hamilton County Medical Society, sponsored by the Chattanooga Surgical Company, was held on May 7th at the Chattanooga Golf and Country Club. The theme of the meeting was "Doctors Night Out."

The guest speaker for the occasion was Mr. G. T. Lumpkin, Jr. of Wachovia, North Carolina, Vice-President of the Wachovia Bank and Trust Company. Mr. Lumpkin is a specialist in estate planning.

Nashville Academy of Medicine and Davidson County Medical Society

The Society held a special meeting on May 7th at Mid-State Baptist Hospital to

discuss the mass use of the Sabin oral polio vaccine. The Society voted unanimously to stage a community-wide immunization program in Davidson County.

Memphis-Shelby County Medical Society

The Society's monthly meeting was held on May 7th in the Officers Club of Naval Air Technical Training Command at Millington. The Society's membership and the staff of the U. S. Naval Hospital at Millington met for a joint session. The meeting was preceded by a social hour and dinner. The House of Delegates meeting followed the scientific program whose guest speaker was Captain C. B. Phoebus, Commanding Officer of the U. S. Naval School of Aviation Medicine in Pensacola, Florida. His topic was "Problems of Putting a Man Into Space."

Gene R. Hensley Joins TMA Staff

Mr. Gene R. Hensley of Nashville joined the TMA staff on June 1st as an Assistant. He will work with a number of committees and assist with the program of work of the Association.

Mr. Hensley was educated in the public high schools of Nashville and received a A.B. degree in 1958 from Peabody College where he majored in Social Studies, including Business Law and Journalism.

For the past four years, he has acted as a District Executive working with adult education for the American Boy Scout Association. His work was involved with organizational activities, committees and adult leadership programs.

Mr. Hensley's experience should be of inestimable value to the staff work and activities of the Tennessee Medical Association.

NATIONAL NEWS

The Month in Washington
(From the Washington Office, AMA)

Congressional passage of the Administration's medical education bill appeared assured following a 288-122 vote of approval in the House. Backers of the bill predicted the Senate would pass it overwhelmingly.

The key vote in the House came on the disputed provision for a federally-administered loan program for medical and other students. This was upheld by a 188 to 150 tally, paving the way for final House approval.

Although the Administration had sought a ten-year, $755 million program of grants for the construction of medical schools and for loans, the House Commerce Committee reduced the program to three years and $236 million in order to give Congress power to review progress periodically.

As approved by the House, the bill calls for a $175 million program of matching grants for the construction, replacement and rehabilitation of schools for physicians, pharmacists, dentists, optometrists, nurses, and professional public health personnel. Also the bill is a $61 million loan program for medical, dental and osteopathic students.

Student nurses also might be eligible under a provision giving the HEW Secretary authority to extend the loans to other health professions if there is a shortage in a particular category.

The American Medical Association endorsed the construction feature of the bill and opposed the loan plan on grounds it "is not necessary since most of the demands are clearly being met by privately sponsored programs," including the AMA's own plan.

Under the construction part of the bill, medical and allied schools would get $105 million in matching grants, dental schools would get $35 million, and $35 million would be for renovation of existing facilities in medical and allied schools.

The loan program provides individual loans not exceeding $2,000 a year. Interest would be a minimum of three per cent or the going federal interest rate, whichever is higher. A "forgiveness" feature for part of the loan for duty in physician shortage areas or in the armed services was stricken from the bill on the House floor.

★

The government's major medical research branch, the National Institutes of Health, had its budget trimmed slightly by the House, the first time in recent years NIH hasn't received a hefty boost over the Administration's request.

The House voted $962.4 million for NIH, $18 million less than called for in the budget, but still a record total and $31 million above this fiscal year's sum.

The HEW Department as a whole received $5,021,759,000 from the House, $263 million under the budget proposal and $150 million less than appropriated last year. Much of this reduction, however, involved public assistance funds which would have to be restored if the money is needed.

The Public Health Service had its budget slashed $51.8 million, receiving a total of $1.5 billion.

Food and Drug Administration appropriations of $40 million were $9 million less than requested but $11 million more than last year.

The Hill-Burton program of hospital construction aid received $177.9 million, almost as much as the request, but $48 million less than last year.

The House Appropriations Committee warned NIH in its report to "exercise a high degree of vigilance that its actions tightening supervision of research grants" not diminish the basic independence and integrity of our institutions of higher learning and the essential conditions of scientific freedom."

The committee said it has been concerned with reports that steps taken by NIH "seriously threaten the freedom of scientists and that they constitute evidence of federal control over science."

Meantime, a House Commerce subcommittee headed by Rep. Kenneth Roberts (D., Ala.) started hearings on charges NIH has been lax in management of research grants and funds. Another purpose of the hearing was to determine whether Congress should keep a closer check on NIH expenditures. U. S. Surgeon General Luther L. Terry told the subcommittee that most of the criticism of the government's medical research activities was unjustified. Dr. James Shannon, head of NIH, said 50 administrative steps have been taken in the past year to make sure NIH money is properly spent.

★

Sen. George Smathers (D., Fla.) and Rep. Wilbur Mills (D., Ark.) introduced similar bills requiring states to provide medical care for the indigent equal to the protection given the elderly under the Kerr-Mills Act provision for the medically indigent.

"It seems poor policy to us to provide less in the way of medical care to persons on old-age assistance, who require help with their day-to-day living expenses," Smathers said, "than we provide to the recipients of medical assistance for the aged who have enough resources to meet their regular expenses other than medical bills."

Rep. Mills is chairman of the House Ways and Means Committee. Sen. Smathers is a high-ranking member of the Senate Finance Committee and chairman of the Special Senate Committee on aging. Their proposal was part of two programs carrying out President Kennedy's recommendations designed to help the elderly.

★

The American Medical Association supported Administration proposals in the fields of maternal and child health.

In a letter to the House Ways and Means Committee AMA executive vice president F. J. L. Blasingame, M.D., said the intent of the legislation is in accord with the major objectives of the AMA's Committee on Maternal and Child Care. "These objectives simply stated are to reduce perinatal and maternal morbidity. The provisions of this act hopefully can make a contribution toward this end."

The legislation authorizes over a five-year period an increase to $50 million from the present $25 million level for grants to state for maternal and child health programs. A five-year, $110 million program of matching grants to states for special projects for maternal and infant care including projects for the provision of health care to prospective needy mothers who have conditions associated with possible mental retardation of their children is included.

MEDICAL NEWS IN TENNESSEE

Middle Tennessee Medical Association

The Middle Tennessee Medical Association held its 137th Semi-Annual Meeting on May 16th at the Brentwood Country Club in Franklin with Dr. Carson E. Taylor

as President. The following scientific program was presented:

"Branchial Cleft Cysts," Dr. George E. Duncan, Nashville; "The Surgical Management of Colon Lesions Simulating Acute Appendicitis," Dr. W. Andrew Dale, Nashville; "Pheochromocytoma," Dr. Douglas H. Riddell, Nashville; Symposium: "Multisystem Trauma"—Moderator, Dr. George W. Holcomb, Jr. Panelists: Drs. Don L. Eyler, Fred Goldner, Jr., Herschel A. Graves, Jr., D. David Scheibert, John M. Tudor, all of Nashville; "The Effect of Fallout on Medical Treatment," Lt. (S.G.) Paul Corcoran, MD, USN, Base Medical Officer, Clarksville Naval Base, Fort Campbell, Kentucky; "Medical and Surgical Management of Endometriosis," Dr. Robert W. Noyes, Nashville; "A Physiologic Operation for Esophageal Hiatal Hernia," Dr. William H. Edwards, Nashville; "The Conservative Management of the Cervical Root Syndrome," Dr. Eugene M. Regen, Jr., Nashville; "The Differential Diagnosis of Pulmonary Tuberculosis," Dr. Thomas B. Haltom, Nashville; "Recognition and Management of Some Forms of Epilepsy," Dr. William M. Clark, Nashville; and a movie: "Cerebrovascular Disease, Challenge of Management," shown by Dr. Robert M. Roy, Nashville. The Presidential Address was entitled: "Medicine and The Battle of Franklin."

Three State Institutions Receive Medical Grants

The National Fund for Medical Education announced on May 5th, grants for the University of Tennessee College of Medicine, Meharry Medical College and Vanderbilt University School of Medicine.

The University of Tennessee received $48,795, Meharry $26,475 and Vanderbilt $23,640. These grants bring the total of money awarded in Tennessee to $1,200,277 since the Fund's first grants were made in 1951.

Acuff Clinic Will No Longer Function

The 17-year-old Acuff Clinic in Knoxville is ending all practice. The announcement was made by Dr. H. Dewey Peters, Sr., the Clinic President. The professional aspects of the Clinic will no longer function, but the organization will continue until all commitments are satisfied and until all bookkeeping completed. The physicians associated with the Clinic are abandoning group practice and will return to private practice.

Mental Health Survey

Tennessee has been awarded a $75,000 grant from the National Institute of Mental Health to finance comprehensive planning to fill the state's mental health needs. Dr. Joseph J. Baker, State Mental Health Commissioner, stated that the grant will be renewed at the end of the first year.

The purpose of the planning project will be to make a careful study and evaluation of the mental health facilities of Tennessee and those that are needed. When the survey is complete, the planning team will suggest goals for the State's mental health program. The suggested goals will be of three types—those needing immediate attention, those which can be reached within five years, and those which can be accomplished in 20 years.

Pulmonary Symposium

The Hamilton County Tuberculosis Association in cooperation with the Chattanooga-Hamilton County Medical Society and the Chattanooga Area Academy of General Practice, sponsored the first annual symposium on chronic pulmonary diseases May 20-21 at Lakeshore Lodge in Chattanooga.

New VA Hospital Opens in Nashville

An ultra modern $17.8 million Veterans Administration Hospital began operations on May 2nd at its new location in Nashville. Approximately 325 patients were transferred to the new building.

The new structure is a five-story building with 498 beds available for use by veterans. The territory to be served by the hospital is in an area of 300 miles in diameter with Nashville as the center. It touches into South Carolina, Kentucky, North Central Alabama, and includes West Tennessee to Lexington, and East Tennessee to Rockwood. Dedication ceremonies took place on June 16.

Law-Medical Seminars

Two seminars on legal questions involved in heart attack cases were conducted as a

part of the University of Tennessee's continuing educational program. The first was held at the UT College of Law in Knoxville on May 3rd and the second at Hotel Patten in Chattanooga on May 10th.

Subjects presented were: "Medicine for Lawyers" and "Law for Doctors." The seminars were open to physicians, lawyers, judges and insurance company representatives.

National Conference Reveals Tennessee Aged Work Stands Well

A national conference of state executives on aging held in Washington, D.C. recently, revealed that Tennessee compares favorably with other states in organization and preparation to meet the needs of the aging.

Reports presented at the conference showed tthat Tennessee stood well among the other states in actual organization and preparation work toward helping the aging. More than 100 leaders in the field of aging met with officials of the Public Health Service, the Department of Labor, the Federal Housing and Home Finance Agency and the Bureau of Family Services of the Welfare Administration, at the conference.

Vanderbilt University School of Medicine

Vanderbilt University is to receive a federal grant of approximately $3 million for research in the field of heart disease. Dr. Randolph Batson, Dean of the University's School of Medicine, stated that the funds will enable Vanderbilt to extend studies in heart diseases and other circulatory disorders.

★

A grant of $445,801 from the U. S. Department of Health, Education and Welfare has been approved for the Department of Physiology. The grant, running from June 1 of 1963 through June, 1964, will make it possible for the Department to expand its research and teaching staff and to intensify its investigation into the way hormones regulate the activity of cells in the body.

★

The formation of public policy is increasingly becoming a part of the job of the physician, and medical schools should be doing more toward preparing doctors for that aspect of their careers, Chancellor Alexander Heard of Vanderbilt University declared recently at the initiation ceremonies by Alpha Omega Alpha, honorary medical school fraternity. Chancellor Heard stated that "as society now functions, physicians have certain public or corporate responsibilities forced upon them."

★

Dr. William A. Altemeier, professor of surgery and chairman of the Department of Surgery at the University of Cincinnati, delivered the 11th Annual "Barney Brooks Memorial Lecture at Vanderbilt University School of Medicine on April 19th. His subject was: "Septic Shock."

★

Vanderbilt University has received a grant of $320,000 by the Ford Foundation for research into the secrets of reproduction. Dr. Robert W. Noyes, chairman of the Department of Obstetrics and Gynecology and head of the research team to work on the project, said that "less is known about reproduction than any field of physiology."

★

A Symposium on Syphilis was held on May 17 and 18, upon the occasion of Dr. R. H. Kampmeier's retirement as Professor of Medicine. The Symposium was sponsored by the American Medical Association, the U. S. Public Health Service and Vanderbilt University.

The program, after words of welcome by Chancellor Alexander Heard and Dean Randolph Batson, began with an introductory paper by Dr. Charles L. Hudson, of Cleveland, Ohio, and of the A.M.A. Board of Trustees on "What The American Medical Association is Doing About Syphilis." Dr. William J. Brown, Chief, Venereal Disease Branch, Communicable Disease Center, Public Health Service, Atlanta, read a paper on "Role of Public Health and Private Medicine in the Eradication of Syphilis." This was followed by the papers of Dr. Harry Pariser, of Norfolk, Virginia, on "Infectious Syphilis"; Dr. Sidney Olansky, Professor of Dermatology, Emory University School of Medicine, Atlanta, on "Late Benign Syphilis," and Dr. Evan W. Thomas, Consultant to the Chicago Board of Health, Chicago, on "Some Aspects of Neurosyphilis." At this session Dr. William J. Brown was in the chair. At the session on May 18, Dr.

R. H. Hutcheson, Commissioner of Public Health of Tennessee, was in the chair. Dr. Eugene J. Gillespie, Deputy Chief, Venereal Disease Branch, Communicable Disease Center, Public Health Service, Atlanta, presented a paper entitled "New Laboratory Methods in the Diagnosis and Management of Syphilis." This was followed by a paper by Dr. William L. Fleming, Professor and Chairman of the Department of Preventive Medicine, University of North Carolina School of Medicine, Chapel Hill, on "History and Epidemiology of Syphilis"; one by Dr. William W. Frye, Dean of the School of Medicine, Louisiana State University, New Orleans, on "The Importance of Contact Investigation in the Control of Syphilis," and by Dr. John C. Hume, Professor of Public Health Administration of the School of Hygiene and Public Health, Johns Hopkins University, Baltimore on "World Wide Problems in the Diagnosis of Syphilis and Other Treponematoses."

A subscription dinner was held on the evening of May 17. As Emeritus Professor of Medicine, Dr. Kampmeier will continue to act as Director of Postgraduate Instruction.

★

Meharry Medical College

A member of the Meharry Medical College faculty has won an $18,401 award from Lederle Laboratories. Dr. Delores Cooper Shockley, assistant professor in the Department of Pharmacology, said the award is effective July 1.

★

Dr. Charles B. Puestow spoke on April 16th in the college's public health lecture hall. The address was a part of Meharry's annual Hale-McMillan Lecture Day Program. Dr. Puestow is chief of surgical services at the Veterans Administration Hospital in Hines, Illinois. He spoke on benign diseases of the biliary tract and pancreas.

University of Tennessee College of Medicine

New research and training grants totaling $446,960 have been awarded to Dr. Donald B. Zilversmit, professor of physiology, by the National Heart Institute of the U.S. Public Health Service. Dr. Zilversmit is a career researcher for the American Heart Association.

★

A statewide study of nursing service and nursing education has been proposed by Miss Ruth Neil Murry at a meeting of the Tennessee League for Nursing. Miss Murry, President of the League and Dean of the University of Tennessee College of Nursing, stated that nursing must be made more attractive as a career and ways must be found to assure nursing personnel full opportunity to use skills.

★

Dr. Harold B. Boyd and Dr. H. I. Cross have been awarded a research grant of $7,000 by the Institute of Arthritis and Metabolic Diseases of the U. S. Public Health Service. Dr. Boyd is chairman of the Division of Orthopedic Surgery and Dr. Cross is a resident at Campbell Clinic. They are studying death of bone in the upper portion of the thigh.

★

A survey conducted by a national magazine has again underlined the University of Tennessee's growing stature as a research institution. Statistics from 98 of America's leading universities—including UT—are reported in the April issue of Industrial Research magazine.

The University of Tennessee is among the 200 universities in America's 2,000 educational institutions classified as important research centers, and the University is ranked in the top third of that 200, putting UT in the upper tenth of the nation's colleges and universities.

★

The College of Medicine at Memphis will provide training in medicolegal investigation for practicing physicians in Tennessee who serve as county medical examiners.

★

Dr. T. S. Hill, chairman of the Department of Psychiatry since 1942, has resigned, effective July 1. He will continue as Professor of Psychiatry and director of the brain research laboratory at the new Tennessee Psychiatric Hospital and Research Institute. Dr. G. H. Aivazian, Professor of Psychiatry, has been named acting chairman of the department.

Upper East Tennessee Pediatric Association

The annual meeting of the Upper East Tennessee Pediatric Association was held in Gatlinburg, June 7-8. Dr. A. H. Tuttle, Memphis, and Dr. J. D. Smith of Jackson, Mississippi, were guest speakers.

PERSONAL NEWS

Dr. K. M. Kressenberg, Pulaski, has been awarded a special plaque for his services as Chairman of the regional blood bank committee which served the 68 Red Cross Chapters in Tennessee and Kentucky.

Dr. R. H. Hutcheson, Jr., Nashville, has been appointed assistant medical officer of Davidson County.

Dr. Earl Campbell, Jr., Chattanooga, recently addressed the Hamilton County Chapter of the American Physical Therapy Association.

Dr. John B. Thomison, Nashville, was a recent guest speaker at the Nashville Exchange Club.

Dr. Alvin J. Ingram, Memphis, addressed Area 2, Tennessee Licensed Practical Nurses Association and discussed the King-Anderson Bill (Medicare).

Dr. C. M. Clark, McMinnville, is the recipient of the coveted citizenship award of VFW Post 5064.

Dr. Roy J. Jarvis, Kingsport, has been elected a Fellow of the American Academy of Pediatrics.

Dr. R. A. Calandruccio, Memphis, recently addressed the District 1, Tennessee Nurses Association.

Dr. C. G. Lyons, Johnson City, has been appointed to the staff of Hawkins County Memorial Hospital as chief of the X-Ray Department.

Dr. Philip Livingston, Chattanooga, has been elected to fellowship in the American College of Angiology.

Dr. Frank Genella, Oak Ridge, will begin practice at the Morgan County Clinic in Wartburg.

Dr. Joseph K. Malloy, Kingsport, recently hosted a group of sixteen orthopaedic surgeons from all over the United States when they met to share views and methods of treatment.

Dr. William J. Sheridan, Chattanooga, recently addressed the local chapter of the National Association of Social Workers. His subject was "Current Medical Legislation."

Dr. J. Kelley Avery, Union City, has been appointed by the Governor to a four-year term on the State Board of Medical Examiners, succeeding **Dr. Malcolm T. Tipton**, also of Union City.

Dr. Robert S. Lash, Knoxville, has been elected President of the South Knoxville Optimist Club.

Dr. Carl T. Stubblefield, Shelbyville, has opened an office in the Bedford County General Hospital with practice limited to radiology.

A television program entitled, "Doctors Meet the Press" included three Nashville physicians. The program was presented by the Middle Tennessee Heart Association. Physicians participating were: **Drs. Thomas F. Frist, Laurence A. Grossman**, and **Elliot V. Newman.**

Dr. Carl C. Gardner, Columbia, was a recent guest speaker before the Kiwanis Club. His subject was mental health and the establishing of a mental health clinic in Maury County.

Dr. Roy R. Bowes, a Goodlettsville physician, has been suspended from the practice of medicine for a period of three months by the State Board of Medical Examiners for "unprofessional conduct."

Dr. Richard C. Sexton, Knoxville, was elected to Fellowship in the American College of Physicians at its annual meeting in Denver. **Doctors Fred B. Ballard, Jr.**, Chattanooga, and **Julian Q. Early**, Bristol, were elected to Associateship.

Dr. Chambless Rand Johnston, Nashville, announces the removal of his office for the practice of general surgery to 2111 Hayes Street and 1130 Murfreesboro Road.

Doctors Jefferson C. Pennington and **Kenneth L. Classen**, Nashville, announce their association in practice limited to general, thoracic and vascular surgery.

ANNOUNCEMENTS

Calendar of Meetings 1963

STATE

June 18-19 —Upper Cumberland Medical Society, Red Boiling Springs, Tenn.

Sept. 30-Oct. 1—Tennessee Valley Medical Assembly, Chattanooga, Tennessee

REGIONAL

June 24-27 —American Orthopedic Association, Homestead, Hot Springs, Virginia

June 24-28 —Internal Medicine: Current Physiological Concepts in Diagnosis and Treatment, American College of Physicians Course, University of Cincinnati College of Medicine, Cincinnati, Ohio

NATIONAL

June 16-20 —American Medical Association, Annual Meeting, Convention Hall, Atlantic City, New Jersey

June 16-20 —Woman's Auxiliary to the American Medical Association, Atlantic City, New Jersey

June 17-29 —Association for Research in Ophthalmology, Atlantic City, New Jersey

June 26-29 —Tenth Annual Meeting of the Society of Nuclear Medicine, Queen

Elizabeth Hotel, Montreal, Canada

June 30-July 4—International College of Surgeons, Bretton Woods, New Hampshire

August 25-30 —American Congress of Physical Medicine and Rehabilitation, Dallas, Texas

August 26-29 —American Hospital Association, Waldorf Hotel, New York City, New York

SMA Session Set for November

The 57th Annual Session of the Southern Medical Association will be held November 18-21 in New Orleans. The four-day scientific meeting will feature 48 half-day sessions of 21 medical specialty programs, a symposium on the thermal technics in medicine, a symposium on malignancies, a two-part program for science writers, eight closed-circuit color television programs and scientific and technical exhibits.

With reference to the EENT Section, Physicians desiring to present papers are urged to correspond with the Section Secretary, Dr. Neil Calahan, 506 Professional Building, Portsmouth, Virginia, at their earliest convenience as the cut-off date is June 30, 1963.

Atlanta Graduate Medical Assembly

The 1964 Atlanta Graduate Medical Assembly program nears completion. The meeting will be held at the Atlanta Biltmore Hotel on February 17-19, 1964, with registration beginning on February 16th.

February 17th will be "A Day of Medicine"—February 18th, "A Day of Surgery"—and February 19th will be "A Day of Obstetrics, Gynecology and Pediatrics."

Rocky Mountain Cancer Conference

Dr. Edward R. Annis, president-elect of the AMA, will be one of the principal speakers at the 17th Annual Rocky Mountain Cancer Conference, July 12-13, at the Brown Palace Hotel in Denver.

The first day of the Conference will be devoted to scientific papers presented by nationally known guest speakers. A panel discussion featuring the guest speakers and entitled "Available Methods in the Treatment of Persistent Cancer," will highlight the morning session of the second day. A Round-Table Forum will follow the panel in the afternoon.

Further information may be obtained by writing Rocky Mountain Cancer Conference, 1809 East 18th Avenue, Denver 18, Colorado.

BRAWNER HOSPITAL, INC.
(Established 1910)
2932 South Atlanta Road, Smyrna, Georgia
FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION
MODERN FACILITIES
Jas. N. Brawner, Jr., M.D.
Medical Director
Aloysius I. Miller, M.D.
Mark A. Gould, M.D.
Phone HEmlock 5-4486

CONSTITUTION AND BY-LAWS OF THE TENNESSEE MEDICAL ASSOCIATION

CONSTITUTION

ARTICLE I
Name of the Association

The name and the title of this organization shall be "The Tennessee Medical Association."

ARTICLE II
Purposes of the Association

The purposes of this Association shall be to federate and to bring into one compact organization, through the component societies, the medical profession of the State, and to unite with similar associations in other states to form the American Medical Association.

The aims of this association shall be:

1. The extension of medical knowledge, the advancement of medical science, the maintenance of medical ethics, and the competence of the art of medical practice.
2. The elevation of the standards of medical education.
3. The enforcement of just laws that have to do with the health and welfare of the people of this State.
4. The promotion of friendly intercourse among physicians, and the guarding and fostering of their material interests.
5. The enlightenment and direction of public opinion in regard to the problems of health and medical care, and the promotion of understanding between the public and the medical profession.
6. To make the medical profession of the State more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III
Component Societies

Component Societies shall consist of those local Medical Societies which hold charters from this Association.

ARTICLE IV
Composition of the Association

Section 1. This Association shall consist of Active Members, Associate Members, Veteran Members, Honorary Members, and Student Members.

Sec. 2. The Active Members of this Association shall be active members of the Component Medical Societies who have been certified to the Secretary of this Association and whose dues have been paid for the current year.

Sec. 3. Associate members shall be commissioned officers in active service of the U. S. Armed Forces, Veterans Administration, and Public Health Service, residing in the State, who are elected to membership by a Component Society and certified to the Secretary of the State Association as Associate Members. Such physicians may be eligible for active membership, if otherwise qualified.

Sec. 4. Veteran Members are those who, because of age or impaired health, have been elected Veteran Members of their Component Societies, and who are so certified to the State Association annually by the Component Societies.

Sec. 5. An Honorary Member is one who is a member of another State Association, or other reputable society, who is pre-eminent in general or special scientific work, whose name, with detailed information concerning his education and professional qualification, is presented in writing by three members of this Association, and who is elected by a two-thirds vote of the House of Delegates.

Sec. 6. A Student Member is any student regularly and duly enrolled in a medical school in Tennessee and who is a candidate for the degree of Doctor of Medicine, and who is certified by his Component Medical Society.

ARTICLE V
House of Delegates

The House of Delegates shall be the legislative and business body of the Association, and shall consist of (1) Delegates elected by the Component Societies; (2) ex-officio the Officers; (3) the five most recent surviving ex-Presidents of the Association, except that all ex-Presidents who were living in April 1956 shall be members for life; (4) the Associations delegates to the American Medical Association, the Commissioner of Public Health, and the Commissioner of Mental Health for the State of Tennessee, provided such Commissioner of Public Health or Mental Health is a member in good standing of the Tennessee Medical Association.

ARTICLE VI
Sections

The House of Delegates may provide in the By-Laws for a division of the scientific work of the Association into appropriate Sections as the need may arise.

ARTICLE VII
Annual Meetings of the Association

The Association shall hold an Annual Meeting at such time and place as provided in the By-Laws, and the Scientific Meetings shall be open to all registered members and guests.

ARTICLE VIII
Officers

Section 1. The officers of the Association shall be a President, President-Elect, a Vice-President for each of the three grand divisions of the State, a Secretary, the six elected Trustees, ten Councilors, a Speaker of the House of Delegates, and a vice-speaker of the House of Delegates.

Sec. 2. The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the immediate Past-President, the President-Elect, the Secretary, and six members elected by the House of Delegates as hereinafter provided.

Six members of the Board of Trustees shall be elected by the House of Delegates, two from each grand division of the State, and no two will be from any one component society.

The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself. The Board of Trustees will organize by the election of a Chairman, and a Treasurer from the six elected as Trustees.

Sec. 3. There shall be one councilor for each of the ten councilor districts in Tennessee and such councilor districts shall be divided into sections to include those counties in each of the councilor districts as defined by the action of the House of Delegates in April, 1961, and listed in this section. The councilors shall be elected for a term of two years, in the following manner: councilors from odd numbered districts will be elected in even calendar years and councilors from even numbered districts will be elected in odd calendar years. No councilor shall serve more than four consecutive years. The councilor districts shall be composed of the counties as listed in each of the following ten districts:

District No. 1: Carter, Claiborne, Cocke, Grainger, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington.

District No. 2: Anderson, Blount, Campbell, Hamblen, Jefferson, Knox, Loudon, Morgan, Roane, Scott, Sevier, Union.

District No. 3: Bledsoe, Bradley, Grundy, Hamilton, Marion, McMinn, Meigs, Monroe, Polk, Rhea, Sequatchie.

District No. 4: Clay, Cumberland, DeKalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, Van Buren, Warren, White.

District No. 5: Bedford, Coffee, Franklin, Lincoln, Marshall, Moore.

District No. 6: Cannon, Cheatham, Davidson, Dickson, Houston, Montgomery, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson.

District No. 7: Giles, Hickman, Humphreys, Lawrence, Lewis, Maury, Perry, Wayne.

District No. 8: Benton, Carroll, Chester, Crockett, Decatur, Fayette, Gibson, Hardin, Hardeman, Haywood, Henderson, Madison, McNairy.

District No. 9: Dyer, Henry, Lake, Lauderdale, Obion, Weakley.

District No. 10: Shelby, Tipton.

The Council shall organize annually by the election of a Chairman and a Secretary.

Sec. 4. The President-Elect, the three Vice-Presidents, a Secretary and the Speaker of the House of Delegates shall be elected annually for one year. The Speaker of the House and the Secretary shall hold office for not more than four consecutive years. The President-Elect shall assume office as President at the expiration of the term of the President.

Sec. 5. The President, Secretary, and Speaker of the House of Delegates shall be ex-officio members of the Council without vote.

Sec. 6. Every officer shall hold office until his successor is elected and assumes office.

Sec. 7. All officers of the Association shall be elected at the second regular session of the House of Delegates, and they shall assume office when elected.

Sec. 8. No member who has not been a member in good standing for five years next preceding election, or who is not in attendance at the meeting shall be eligible for election as President-Elect.

ARTICLE IX

The Powers and Duties of the Board of Trustees

Section 1. The Board of Trustees shall have entire control of the publication, the policy and the editorial and financial management of the Journal of the Association. It shall be authorized and empowered to make all contracts necessary for the conduct of the Journal. It shall appoint the Editor of the Journal.

Sec. 2. The Treasurer of this Association shall be the custodian of all the funds of the Association.

Sec. 3. The Board of Trustees shall hold quarterly meetings, one of which shall be held on the last day of the Annual Meeting, and such other meetings as the business of the Association may require, subject to the call of the Chairman. The Board of Trustees shall make expenditures of the funds of the Association dependent upon the availability of such funds as determined by the Board of Trustees and as ordered by the House of Delegates. The Board of Trustees shall render at the Annual Session a full and detailed accounting of all receipts and disbursements.

Sec. 4. In the event of a vacancy by death or resignation of any member of the Board of Trustees between the Annual Meetings of the Association, the Vice-President for that division of the State in which the vacancy occurs, shall serve as a member of the Board of Trustees until the next annual meeting.

Sec. 5. The Board of Trustees shall be the Executive Board of the Association to determine the policy and details of management between sessions of the House of Delegates.

Sec. 6. The Board of Trustees shall serve without compensation, however, their actual expense in attending the meetings of the Board shall be paid out of the funds of the Association. This is not to apply where a meeting is held at the Annual Meeting.

ARTICLE X

Fiscal Year and Dues

Section 1. The fiscal year of the Association shall be from January 1 through December 31.

Sec. 2. The annual dues of Active Members shall be fixed in the By-Laws. No dues shall be

paid by Veteran, Associate, Student, or Honorary Members. (Chap. IX.)

ARTICLE XI
Referendum

The General Meeting of the Association may, by a two-thirds vote of the members present and voting, order a general referendum upon any question pending before, or already decided by the House of Delegates. The House of Delegates may, by a similar vote of its own members, or after a vote of the general meetings, submit any such question to the membership of the Association for a final vote. If the persons voting shall comprise a majority of all the members registered at that Annual Meeting, a majority of such vote shall determine the question and be binding upon the House of Delegates.

ARTICLE XII
The Seal

The Association shall have a common seal, with the power to break, change or renew the same at pleasure, by action of the House of Delegates.

ARTICLE XIII
Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates registered at the Annual Session; provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been sent officially to each component Society at least two months before the Session at which action is to be taken.

BY-LAWS

CHAPTER I
Membership and Sections

Section 1. All Active Members, Associate Members, Veteran Members, Student Members, Honorary Members, and invited guests shall be privileged to attend all scientific meetings and take part in the discussion of all scientific questions, but Active Members and Veteran Members only shall be entitled to vote and hold office.

Sec. 2. A physician whose name is upon a properly certified roster of members, or list of delegates of a chartered component Society, which has paid its annual assessment, or an invited guest, is eligible to register at the annual meeting.

Sec. 3. No person who is under sentence of suspension or expulsion from any component Society of this Association, or whose name has been dropped from its roll of members shall be entitled to any of the rights or benefits of this Association nor shall he be permitted to take any part in any of its proceedings until such time as he has been relieved of such disability.

Sec. 4. Each member in attendance at the Annual Meeting shall enter his name on the registration book or card, indicating the component Society of which he is a member. When his right to membership has been verified, by reference to the roster of his society, he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that meeting. No Member or Delegate shall take part in any of the proceedings of an Annual Meeting until he has complied with the provisions of this Section.

CHAPTER II
Annual and Special Meetings of the Association

Section 1. The Association shall hold an Annual Meeting beginning on Monday preceding the second Tuesday in April, and at such place as has been fixed at the preceding Annual Session, but it is agreed that the meetings shall rotate annually to Middle, West, and East Tennessee.

The House of Delegates shall meet annually at the place of the Annual Meeting of the Association. It shall meet on Sunday preceding the second Tuesday of April and thereafter until its work is completed.

If the business interests of the Association require, it may meet in advance of or remain in session after the final adjournment of the general meeting, such extraordinary sessions being subject to the call of the Speaker of the House of Delegates.

Sec. 2. Special Meetings of either the Association or House of Delegates shall be called by the President at his discretion or upon petition of twenty Delegates.

Sec. 3. If for any valid reason an Annual Meeting cannot be held on the date as named, the President, the three Vice-Presidents, the Secretary, and the Board of Trustees may fix another date provided the Secretaries of component Societies are notified as far in advance of the changed date as possible by the Executive Director of the Association and, if time permits, each Member shall be notified by a personal communication mailed to his address."

CHAPTER III
General Meetings

Section 1. The General Meeting shall include all registered Active Members, Associate Members, Veteran Members, Student Members, Honorary Members and guests, all of whom shall have equal rights to participate in the proceedings and discussions. Each General Meeting shall be presided over by the President, or, in his absence or disability, or by his request, by one of the Vice-Presidents. Before it, at such time and place as may have been arranged, shall be delivered the Annual Address of the President and the annual orations; and the entire time of the meeting, so far as possible, shall be devoted to papers and discussions, clinics, and demonstrations, relating to scientific medicine.

Sec. 2. The General Meeting shall have authority to create committees or commissions for scientific investigation of special interest and importance to the profession and public, and to receive and dispose of reports of the same, but any expense in connection therewith must first be authorized by the House of Delegates.

Sec. 3. Except by special vote, the order of exercises, papers, and discussions as set forth in the official program, shall be followed from day to day until it has been completed, and all papers omitted shall be recalled in regular order.

Sec. 4. All papers read before the Association shall be its own property. Each paper shall be deposited with the Editor of the Journal.

CHAPTER IV
House of Delegates

Section 1. The House of Delegates shall meet annually at the time and place of the Annual Meeting of the Association. It shall meet on the Sunday preceding the second Tuesday in April and thereafter until its work is completed. If the business interests of the Association require, it may meet in advance of or remain in session after the final adjournment of the General Meeting, such extraordinary sessions being subject to the call of the Speaker of the House of Delegates.

Sec. 2. Each component Society shall be entitled to send to the House of Delegates each year one delegate for every fifty active and veteran members and one for every fraction thereof, based upon the number of such members in the component Society in good standing as of December 1 of the year preceding the session of the House. Each component Society holding a charter from the Association, which has made its annual report and paid its assessment as provided in the Constitution and By-Laws, shall be entitled to at least one delegate. No delegate from any chartered component medical society shall be entitled to be seated in the House of Delegates unless the component medical society which he represents has complied with the requirements of the Association by submitting the report to the Councilor of the District in which the component society is located.

Sec. 3. A majority of the registered Delegates shall constitute a quorum, and all the sessions of the House of Delegates shall be open to Members of the Association.

Sec. 4. From among members of the House of Delegates the Speaker of the House of Delegates, for the purpose of expediting proceedings, shall appoint Reference Committees to which reports and resolutions shall be referred. He shall also appoint a Committee on Credentials and such other committees as may be considered by him to be necessary.

Sec. 5. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body, for a period of two years, no two residing in the same grand division of the State, except when more than three delegates are authorized. The Association shall pay the expenses of each Delegate representing the Association at the American Medical Association meetings, and only first class transportation for alternate delegates once a year.

Sec. 6. It shall, upon application, provide and issue charters to component Societies organized to conform to the spirit of this Constitution and By-Laws of the Association, or in the ethics of the American Medical Association, when so recommended by the Councilors.

Sec. 7. In sparsely-settled sections it shall have authority to organize the physicians of two or more counties into one component Society, the name to be chosen by that Society, so as to distinguish them from district and other classes of Societies; and these Societies, when organized and chartered, shall be entitled to all the privileges and representations provided herein for component Societies.

Sec. 8. It shall have authority to appoint special committees for special purposes from its own membership, or from among members of the Association who are not members of the House of Delegates; and such committeemen shall report to the House of Delegates in person, and may participate in the debate thereon.

CHAPTER V
Election of Officers

Section 1. All elections shall be by ballot of the House of Delegates and the majority of the votes cast shall be necessary to elect.

Sec. 2. On or before March 1st each year, preceding the annual session, the Board of Trustees shall consider the names of the members of the House of Delegates of the Association, and select nine delegates, from those eligible, to compose a Nominating Committee. The members of the Nominating Committee shall represent the three grand divisions of the state, with three members from East Tennessee, three members from Middle Tennessee and three members from West Tennessee. No two members of the Nominating Committee shall represent the same county medical society. The Executive Director of the Association shall notify the secretaries of all component medical societies of the names of members of the Nominating Committee, with the request that those members named to the Nominating Committee shall be made known to the membership of each of the component societies.

The Nominating Committee will be supplied, by the Board of Trustees, with the offices that are to be filled and elected by the House of Delegates. Any county medical society desiring to place the name of any physician in nomination for an office of the Tennessee Medical Association, will have the opportunity to contact its representatives on the Nominating Committee.

It shall be the duty of the Nominating Com-

mittee to hold at least one meeting, prior to the opening session of the House of Delegates at a time and place designated by the President of the Association, elect a chairman and consider candidates for offices to be filled. The committee shall report its selection of nominees to the House of Delegates. The Nominating Committee shall name at least one member for each of the offices to be filled at the general session.

Sec. 3. The report of the Nominating Committee and the election of officers shall be the first order of business of the session of the House of Delegates on the morning of the second day of the General Meeting of the Association.

Sec. 4. Nothing in this Chapter shall be construed to prevent additional nominations being made by members of the House of Delegates.

Sec. 5. In balloting for the nominees for President-Elect, if on the first ballot no one receives a majority of the votes cast, the name receiving the smallest number of votes shall be dropped, and the balloting shall proceed in this manner until an election is had.

CHAPTER VI

Duties of Officers

Section 1. The President, or his appointees, shall preside at all meetings of the Association. He shall appoint all members of Committees not otherwise provided for, shall deliver an Annual Address at such time as may be arranged, shall give a deciding vote in case of a tie, and shall perform such other duties as custom and parliamentary usage may require. He shall be the head of the profession of the State during his term of office, and, as far as practicable, shall visit, by invitation, the various component societies of the State and assist the Councilors in building up these Societies and in making their work more practical and useful. The retiring President shall be ex-officio a member of the Board of Trustees for one year.

Sec. 2. The Vice-Presidents shall assist the President in the discharge of his duties, as requested by the President. In the event of his death, resignation, inability to serve, or removal from office, the Vice-President to succeed him shall be from the same Grand Division of the State.

Sec. 3. The Treasurer shall give bond for the trust reposed in him, for such amount as the remaining members of the Board of Trustees may name, said bond to be made by a regular bonding company, and paid for by the Association. He shall demand and receive all funds due the Association, together with bequests and donations. All funds shall be deposited in a State or National Bank. He shall pay money out of the treasury on bills certified to by him or the Executive Director of the Association only; he shall subject his accounts to such examination as the House of Delegates may order; he shall annually render an account of his acts and of the state of the funds in his hands.

Sec. 4. The Speaker of the House of Delegates shall preside over that body and perform the usual duties of such officer. He shall sign the Minutes of its transactions when same have been read and approved by the House. In the event of his absence for any cause, or upon request of the Speaker, the Vice Speaker of the House of Delegates, shall perform those duties. The Speaker shall also be ex-officio member of the Board of Trustees.

Sec. 5. In the event of the death, resignation, disability, or removal of any official of this Association, other than the President, or a member of the Board of Trustees, the vacancy so created shall be filled by the Board of Trustees, and the officer so appointed shall serve until the next regular session of the House of Delegates.

This shall include Delegates and Alternate Delegates to the House of Delegates of the American Medical Association.

Sec. 6. The Editor of the Journal shall be appointed by the Board of Trustees. The Editor shall act with the Committee on Scientific Work to prepare and issue programs for the meetings of the Association.

As the Editor of the Journal, he may select an Editorial Board to be composed of as many members as he deems administratively desirable, subject to the approval of the Board of Trustees. The Editor's honorarium shall be determined by the Board of Trustees.

Sec. 7. The Board of Trustees shall be empowered to select and remove, without assigning cause, an Executive Director. The Executive Director may or may not be a member of this Association, and may or may not be a graduate in medicine. He shall be custodian of all records, books, papers, building and property belonging to the Association, except such property belonging to the Editor of the Journal, the Council, the Sections and the various committees, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which may come into his hands; he shall provide for the registration of members and delegates at the Annual Meeting; and upon request, shall transmit a copy of this list to the American Medical Association. Insofar as in his power, he shall use the printed matter, correspondence, and influence of his office to aid the Councilors in the organization of the component societies and in the extension of the power and influence of this Association. He shall visit each councilor district at least once a year and oftener, if advisable, and assist the Councilors in organizing unorganized counties, and use every means possible to promote the interests of the Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall serve as Recorder for the House of Delegates. He shall discharge such other duties as the Board of Trus-

tees shall direct. He shall act as business manager of the Journal of the Association, and he shall be the director of all activities in the central office. His salary shall be determined by the Board of Trustees. He shall be required to furnish bond paid for by the Association in the amount designated by the Board of Trustees.

CHAPTER VII
Council

Section 1. The Council shall hold meetings during the Annual Meeting of the Association, and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet after the election of Councilors on the second day of the Annual Session for organization, and for the outlining of work for the ensuing year. At this meeting it shall keep a permanent record of its proceedings. Five Councilors shall constitute a quorum.

Sec. 2. Each Councilor shall be the representative of the Tennessee Medical Association in his District in matters pertaining to the conduct of members and of component societies. He shall make investigations and suggest solutions of problems which come to his attention. He shall make annually a written report of his activities to the Council.

Sec. 3. The Council may recommend to the House of Delegates censure, suspension, or expulsion of any member; or recommend to the House of Delegates censure or revocation of the Charter of any component society after a hearing before such persons and in such manner as the Council shall direct at which the accused member or component society, with or without counsel, shall be given an opportunity for a full and equitable hearing; or may suspend or drop from membership any member for the non-payment of dues. Any member shall be dropped from membership automatically upon the filing by any person with the Council of a certified copy of the final order of revocation of license of such member by any tribunal of competent jurisdiction. Any member suspended, expelled, or dropped from the membership may be reinstated by the affirmative vote of the majority of the House of Delegates upon recommendation of the Council. It shall make such report or recommendation to the House of Delegates as it deems to the best interest of the Association.

CHAPTER VIII
Divisions and Committees

Section 1. Divisions: The program of work of the Association shall be conducted by such Divisions and Committees as may be established by the House of Delegates. The program of the Association shall be conducted through the following structure:

(a) Divisions
(b) Standing Committees
(c) Special Committees

Section 2. The Committees of each Division shall report annually to the House of Delegates and when required, to the Board of Trustees. Each Division shall be composed of the appropriate Committees and Sub-Committees of the Association, and coordinated by a member of the Board of Trustees.

The Divisions of the Association shall be as follows:

1. Division of Scientific Advancement
2. Division of Legislative Affairs
3. Division of Communications and Public Service
4. Division of Socio-Economics—Insurance and Medical Service
5. Division of Governmental Medical Services.

Section 3. Division on Scientific Advancement —This Division shall consist of the following Committees: Committee on Scientific Work and Postgraduate Education, Cancer Committee, and other appropriate committees or sub-committees that may be established.

Section 4. Division on Legislative Affairs—The Division shall concern itself with legislative matters on both the state and national level. When legislative questions arise between sessions of the House of Delegates, the appropriate committee of the Division on Legislative Affairs shall have the authority to establish interim policies for the Association, subject to the approval of the Board of Trustees.

This Division shall consist of the Committee on Legislation and Public Policy and other appropriate committees and sub-committees that may be established.

Section 5. Division on Communications and Public Service—The duties of this Division shall be to conduct such programs and engage in such activities as may result in a proper evaluation by the medical profession of its obligation to the public.

The Division shall consist of the following Committees: Communications and Public Service Committee, Committee on Rural Health, Grievance Committee, and other appropriate committees and sub-committees that may be established.

Section 6. Division on Socio-Economics—Insurance and Medical Services: This Division shall be concerned with the socio-economic aspects of medical care (excluding legislation). In addition, it shall be the duty of this Division to study, coordinate and make recommendations regarding the various types of insurance programs in which members of the Association may participate or be involved.

This Division shall consist of the following Committees and Sub-Committees: Insurance Committee, Committee on Hospitals, Health Insurance Committee, Tennessee Medical Foundation Committee, and other appropriate committees or sub-committees that may be established.

Section 7. Division on Governmental Medical Services: It shall be the duty of this Division to

investigate and make recommendations on activities dealing with the various departments of Public Health and Public Welfare of the State of Tennessee, and those programs and dealings of the Association with governmental medical affairs. This Division shall make a continuing study of programs dealing with governmental medical services.

The Division shall consist of the following Committees: Liaison Committee to Public Health Department, Advisory Committee to the Department of Public Welfare, and other appropriate committees and sub-committees that may be established.

Standing Committees and Their Duties

Section 8. (a) The Committees of this Association shall be Standing and Special Committees. The Standing Committees shall be as follows:

1. A Committee on Scientific Work and Postgraduate Education.
2. A Committee on Legislation and Public Policy.
3. A Liaison Committee to the Public Health Department.
4. A Committee on Memoirs.
5. An Insurance Committee.
6. A Committee on Cancer.
7. A Committee on Hospitals.
8. A Grievance Committee.
9. An Advisory Committee to the State Department of Public Welfare.
10. A Communications and Public Service Committee.
11. A Rural Health Committee.
12. A Committee on Health Insurance.
13. A Committee on Tennessee Medical Foundation.

(b) The members of these standing committees shall be appointed by the Board of Trustees. The terms of service of members of standing committees shall be for a period of one to three years except when otherwise provided in the By-Laws.

The appointments shall be made for such a period of years that the terms of not more than one-third of the members will terminate each year. Each standing committee shall make a report to the House of Delegates at each Annual Session.

Sec. 9. The Committee on Scientific Work shall consist of ten members, nine of whom are appointed. The Editor of the Journal shall be a member of the Committee. It is the duty of this Committee to plan and provide the scientific program for each meeting of this Association. Previous to each Annual Meeting it shall prepare and issue a scientific program which shall be adhered to by the Association as nearly as practicable. It shall also be the duty of this Committee actively to assist the Editor and those acting as the Editorial Board in preparing the scientific portion of the Journal of the Association.

Sec. 10. The Committee on Legislation and Public Policy shall consist of nine members, one from each congressional district of the state. The Committee shall be appointed by the Board of Trustees and the Board will appoint the Chairman of the Committee. The Editor will be ex-officio, a member of the Committee. The Committee shall be organized with three members to be named for three years, three for two years and three for one year. Thereafter, members of the Committee shall be named for a term of three years each. In the work of the Committee, if it is found that additional members are necessary in the conduct of the Committee's business, the Committee may request the Board of Trustees for additional appointments to serve one year terms. Under the direction of the House of Delegates, it shall represent the Association in securing and enforcing legislation in the interest of the public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall utilize every organized influence of the profession to promote the general influence in local, state, and national affairs. Its work shall be done with the dignity becoming a great profession, and with that wisdom which shall make effective its power and influence. It shall have authority to be heard before the entire Association upon questions of great concern at such times as may be arranged during the Annual Meeting.

Sec. 11. The Liaison Committee to the State Public Health Department shall consist of five members, to be appointed by the Board of Trustees of the Association and who shall name the Chairman of the Committee for the period of the appointee's term of office. At least one member shall be from each grand division of the State. One member shall be appointed for a period of five years; one for four years; one for three years; one for two years; and one for one year. Thereafter, one member shall be appointed annually for a period of five years.

It shall be the duty of this Committee to confer with the officials of the Department of Health of the State in matters of policy affecting the profession of the State; and it shall be the further duty of this Committee to confer with any member or members of this Association in matters concerning the activities of the Department of Health of the State, provided that all matters over which this Committee shall have jurisdiction shall be presented to the Committee, through its Chairman, in writing.

It shall be the duty of the Committee to make a detailed annual report to the House of Delegates of its activities; said report being subject to review by the House of Delegates. In the interval between the annual sessions of the House of Delegates the action of this Committee by a majority vote shall be final.

In the event of a vacancy in the membership of the Committee for any cause, said vacancy shall

be filled by appointment by the Board of Trustees, said appointee assuming the position on the Committee for the unexpired term of the member whom he succeeds. The House of Delegates directs the Liaison Committee to act in an advisory manner to the Public Health Council as now constituted, in the matter of formation of all policies.

Sec. 12. The Committee on Memoirs shall perform such duties as will contribute to the proper recognition of deceased members.

Sec. 13. The Committee on Insurance shall consist of three members, one from East, one from Middle, and one from West Tennessee, to be appointed by the Board of Trustees of the Association. One member shall be appointed for one year, one for two years, and one for three years. Thereafter one member shall be appointed annually for a term of three years. Any vacancy shall be filled for any unexpired term that might occur by the Board of Trustees.

It shall be the duty of this Committee to attend to all group insurance in which this Association is or may become interested. It shall have power to select insuring companies, accept or reject master policies, arrange premium rates, and act as trustees for this Association in the matter of such group insurance.

All actions of the Committee shall be subject to the approval of the Board of Trustees.

The Chairman of the Committee shall be designated by the Board of Trustees. He shall report to the House of Delegates at each Annual Session upon the activities of the Committee during the preceding year. All necessary expenses of the Committee in the performance of its duties shall be paid by the Treasurer of this Association upon certification of the expenses by the Chairman of the Committee, but this shall not apply to attendance at meetings held at the Annual Meeting.

Sec. 14. The Committee on Cancer shall promote educational activities directed at two objectives: (a) the fullest possible knowledge on the part of the medical profession concerning the recognition of malignancy in its early stages, and (b) the disposition on the part of lay people to consult a well-qualified physician when a condition presents which may be an early malignancy.

Sec. 15. The Committee on Hospitals shall consider all matters relating to the operations of hospitals as the same may affect the medical profession and the public welfare. It shall make recommendations to the House of Delegates when in its judgment action should be taken on any matter pertaining to the policies enforced in the operation of a hospital.

The principal objective of this Committee is that of preserving a proper relationship between the medical profession and the hospitals in the State. When policies are formulated and enforced by a hospital, which in the opinion of the Committee constitute a violation of the ethical principle which should govern the relationship of a hospital to members of the medical profession and the public, it shall be its duty to bring the matter to the attention of the medical profession and to take such other steps as are deemed necessary and appropriate to correct the practice.

The Committee is charged with the duty of recommending legislation on the subject to the House of Delegates should such a step be considered advisable.

Sec. 16. The Grievance Committee's duties shall be to act as a body to hear any complaints that are registered by patients against any physician at whose hands he thinks he has suffered an injustice. This Committee shall consist of three members. The Committee will be composed of the last three surviving Ex-Presidents. The Ex-President who has served on the Committee for the two previous years will serve as Chairman during the third year of his term on the Committee.

Sec. 17. The Advisory Committee to the State Department of Public Welfare shall consist of five members to be appointed by the Board of Trustees for a term of five years, provided, that the first appointments shall be for the following terms: one member for one year; one member for two years; one member for three years; one member for four years; and one member for five years—all subsequent appointments to be for a term of five years.

The Committee shall (1) assist the Department of Public Welfare formulate policies which concern the relationship of the Department to the medical profession; (2) assist in determining disability for public assistance programs of the Department and other medical problems related to public assistance; and (3) advise the commissioner on the medical aspects of other departmental projects or problems.

The Committee, through its Chairman, shall make an annual report of its activities to the House of Delegates.

Sec. 18. The Communications and Public Service Committee—this Committee shall be appointed by the Board of Trustees and shall consist of one representative from each Councilor District and six members from the state-at-large, two members being appointed from each grand division. The Editor will be, ex-officio, a member of this Committee.

It shall be the duty of the Communications and Public Service Committee to enlighten and direct public opinion in regard to the problems of health and medical care, and the promotion of understanding between the public and the medical profession.

This Committee shall have a full-time Secretary who will be the Public Service Director and who shall be a member of the Central Office staff. He shall be responsible for the conduct of the activities of the Committee throughout the State and he will assist with the other field services of the Association.

The Public Service Director shall be employed or removed without assignment of cause by the

Board of Trustees upon recommendation of the Communications and Public Service Committee. His salary shall be determined by the Board of Trustees.

Sec. 19. Rural Health Committee—The Rural Health Committee shall be appointed by the Board of Trustees. The Chairman shall be appointed by the Board of Trustees.

The duties of the Rural Health Committee shall be to promote the improvement of health standards in rural areas of Tennessee.

Sec. 20. The Health Insurance Committee—This Committee shall be composed of such members, lay and medical, as deemed necessary by the Board of Trustees. A chairman shall be designated by the Board of Trustees.

The duties of the Health Insurance Committee shall be the perpetual study and investigation of the problems of prepaid health insurance.

Sec. 21. The Committee on Tennessee Medical Foundation shall consist of nine members to be appointed by the Board of Trustees, the members to serve terms of three years each, with three members to be appointed each year; the first appointments shall be made for the following terms: three members for three years; three members for two years and three members for one year, with all subsequent appointments to be for terms of three years.

The Committee shall formulate the policies and determine the program of the Tennessee Medical Foundation. It shall have the general management and control of the activities of the Foundation. The Committee, through its chairman, shall make an annual report to the House of Delegates.

At all meetings of the Committee, five members shall constitute a quorum for the transaction of business.

The Chairman of the Committee shall be appointed by the Board of Trustees.

The duties of the Committee shall be to study the problems involved with medical care in rural and isolated areas and to assist in providing medical care to such areas.

The Committee on Tennessee Medical Foundation may establish such subordinate committees as necessary to conduct the business of the Foundation. The Committee on Tennessee Medical Foundation shall also constitute the members of the Board of Directors of the Tennessee Medical Foundation.

Special Committees

Sec. 22. Special Committees shall be established by the Association to conduct specific work and studies. The special committees shall consist of members as appointed by the Board of Trustees or the President and shall be placed in the proper division. The term of office shall be designated to the members of such committees upon their appointment.

The function of special committees is for a specific project as determined by the House of Delegates, the Board of Trustees or the President.

CHAPTER IX
Assessments and Expenditures

Section 1. The annual dues shall be determined by the House of Delegates and shall be levied per capita on the active members of the chartered component societies. The annual dues shall be payable on January 1 of the year for which they are levied, but any component society reporing dues to the Tennessee Medical Association shall be considered delinquent if payment of dues are not made by July 1 of the year for which they are levied. The secretary of each component society shall cause to be collected and shall forward to the offices of the State Association, the dues for its members. Any member whose name has not been reported for enrollment and whose dues for the current year have not been remitted to the State Association on or before July 1 of the year for which they are levied shall stand delinquent until his name is properly reported and his dues for the current year properly remitted. Every active member of the Association shall receive the Journal without cost.

Sec. 2. *A new member joining the Association for the first time and who is so reported after July 1 of a given year, shall pay one half of the annual dues for that year only.*

Sec. 3. The Honorary Members of any component medical society are exempt from payment of dues, but a complete list of their names, certified by the respective component medical society, will be kept in the Headquarters Office of the Tennessee Medical Association. Likewise, a component medical society is required to report a list of its Veteran Members who have been elected by that society and the Journal will be furnished to Veteran Members without cost.

Sec. 4. The secretary or treasurer of each component society shall forward a roster of all officers, membership, a list of delegates to the House of Delegates of the Tennessee Medical Association, together with a list of non-affiliated physicians of the county if practical, and also a list of members who have died during the year, to the Executive Director of this Association thirty days in advance of the annual meeting.

Sec. 5. The record of payment of dues on file in the offices of the Tennessee Medical Association shall be final as to the fact of payment by a member of the Association.

CHAPTER X
Rules of Conduct

The Principles set forth in the Code of Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

CHAPTER XI

The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's "Rules of Order."

CHAPTER XII
Component Societies

Section 1. All Component Societies now in affiliation with the State Association, or those that may hereafter be organized in this State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, may, upon application to the House of Delegates, receive a charter from and become a component part of this Association.

Sec. 2. Charters shall be issued only upon approval of the House of Delegates, and shall be signed by the President and Secretary of this Association. The House of Delegates shall have authority to revoke the charter of any component Society, whose actions are in conflict with the letter or spirit of this Constitution and By-Laws, or the code of ethics of the American Medical Association upon recommendation of the Council.

Sec. 3. Each component Society shall judge the qualifications of its own members; but as such, Societies are the only portals to this Association, and to the American Medical Association. Every reputable and legally registered physician, who is practicing or who will agree to practice nonsectarian medicine, shall be entitled to membership. Each component Society of this Association may amend its constitution and/or by-laws to provide that the payment of dues to the American Medical Association shall be a condition of active membership in that society. Before a charter is issued to any component Society, full and ample notice and opportunity shall be given to every such physician in the County to become a member.

Sec. 4. Only one component Medical Society shall be chartered in any County. When more than one County Society exists, friendly overtures and concessions shall be made, with the aid of the Councilor for the District, if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Council, which shall decide what action shall be taken.

Sec. 5. Any physician who may feel aggrieved by the action of the Society in his County in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Council.

Sec. 6. In hearing appeals, the Council may admit oral or written evidence, as in its judgment will best and more fairly present the facts, but in the case of every appeal, both as a board and as individual Councilors in district and county work, efforts at conciliation and compromise should precede all such hearings.

Sec. 7. When a Member in good standing in a component Society moves to another County in the State, his name, upon request, and with the consent of his component Society, shall be transferred, without cost, to the roster of the component Society in whose jurisdiction he moves, but he shall not hold membership in more than one component Society.

Sec. 8. A physician living on or near a County line may hold his membership in that County most convenient for him to attend, on permission of the Society in whose jurisdiction he resides, and with consent of his Councilor.

Sec. 9. Each component Society shall have general direction of the affairs of the profession in the County or Counties and its influence shall be constantly exerted for bettering the scientific, moral, and material condition of every physician in the County; and systematic effort shall be made by each member, and by the Society, as a whole, to increase the membership until it embraces every qualified physician in the County.

Sec. 10. Frequent meetings shall be encouraged and the most attractive programs arranged that are possible. The younger members shall be especially encouraged to do postgraduate and original research work and to give the Society the benefits of such labors. Official position and other preferments should be unstintingly given to such members.

Sec. 11. At some meetings in advance of the annual Meeting of this Association, each component Society shall elect a Delegate or Delegates to represent it in the House of Delegates of this Association, in the proportion of one Delegate and one alternate to each fifty members or fraction thereof; and the Secretary of the Society shall send a list of such Delegates to the Secretary of this Association *on or before January 1 preceding the Annual Meeting.*

Sec. 12. The Secretary of each Component Society shall keep a roster of its members and shall furnish an official report of the membership to the Association at least once each year and oftener if circumstances as to membership may require. The Secretary of the Component Society shall also note any changes in the personnel of the membership, with special reference to changes due to death and removal from the district.

CHAPTER XIII
Amendments

In order to amend the by-laws of this Association, a two-thirds majority of the members of the House of Delegates present and voting shall be necessary. Such amendment, after having been filed in writing, shall lie over one day. Any by-law may be suspended during the pending meeting by unanimous consent.

TENNESSEE MEDICAL ASSOCIATION 1963-1964 STANDING COMMITTEES

Committee on Scientific Work and Postgraduate Education—R. H. Kampmeier, Chairman, Nashville; W. Powell Hutcherson, Chattanooga; Robert P. McBurney, Memphis; Eugene J. Spiotta, Memphis.
(Specialty Representatives To Be Named)

Committee on Hospitals—Robert M. Miles, Memphis, Chairman (1965); James A. Burdette, Knoxville (1966); C. D. Hawkes, Memphis (1965); Harry T. Moore, Jr., Nashville (1965); Chester K. Jones, Jackson (1964) John W. Adams, Jr., Chattanooga (1964); Thomas K. Young, Jr., Columbia (1964) George L. Smith, Winchester (1965) Granville Hudson, Nashville (1966); Brian T. Shorney, Nashville (1966).

Legislative and Public Policy Committee—Tom E. Nesbitt, Chairman, Nashville (1964); H. L. Monroe, Erwin (1965); Charles C. Smeltzer, Knoxville (1966); George K. Henshall, Chattanooga (1964); Sam H. Hay, Murfreesboro (1965); K. M. Kressenberg, Pulaski (1966); John G. Riddler, Jackson (1965); Byron O. Garner, Union City (1966); W. David Dunavant, Memphis (1964). **(Appointed for One-year Terms)**—Alvin J. Ingram, Memphis (1964); Perry J. Williamson, Knoxville (1964); Robert E. Baldwin, Chattanooga (1964); Warren B. Henry, Chattanooga (1964); Chas. C. Trabue, IV, Nashville (1964); James T. Callis, Crossville (1964); Thomas F. Frist, Nashville (1964); E. T. Brading, Johnson City (1964); O. M. McCallum, Henderson (1964); A. Roy Tyrer, Memphis (1964); Clifton Greer, Nashville (1964); Charles A. Trahern, Clarksville (1964); R. H. Kampmeier, Ex-officio, Nashville (1964).

Liaison Committee to the Public Health Department—Wm. A. Hensley, Chairman, Cookeville (1966); C. D. Hawkes, Memphis (1965); William I. Proffitt, Cleveland (1967); Lamb B. Myhr, Jackson (1967); Thomas S. Weaver, Nashville (1964).

Committee on Insurance—Wm. T. Satterfield, Chairman, Memphis (1965); Augustus McCravey, Chattanooga (1964); Garth Fort, Nashville (1966); George L. Inge, Knoxville (1964); B. F. Byrd, Sr., Nashville, Consultant.

Committee on Cancer—B. F. Byrd, Jr., Chairman, Nashville (1965); Edwin W. Cocke, Jr., Memphis (1965); Ralph H. Monger, Knoxville (1964); Hollis E. Johnson, Nashville (1964); S. S. Marchbanks, Chattanooga (1965); G. Sydney McClellan, Nashville (1965); John M. Higgason, Chattanooga (1965); Homer P. Williams, Bristol (1965); Cyrus C. Erickson, Memphis (1965).

Committee on Memoirs—Henry L. Douglass, Chairman, Nashville (1965); A. M. Patterson, Chattanooga (1966); S. Fred Strain, Sr., Memphis (1965).

Committee on Health Insurance—B. K. Hibbett, III, Chairman, Nashville; Joseph W. Johnson, Jr., Chattanooga; Robert N. Sadler, Nashville; E. L. Caudill, Jr., Elizabethton; James J. Callaway, Nashville; Wm. A. Garrott, Cleveland; Greer Ricketson, Nashville; Harry T. Moore, Jr., Nashville; William G. Crook, Jackson; J. Cash King, Memphis; Thomas F. Parrish, Nashville; W. T. Satterfield, Memphis; Howard A. Boone, Memphis; Robert N. Buchanan, Jr.,; Nashville; Elgin P. Kintner, Maryville; H. K. Turley, Memphis; A. Roy Tyrer, Memphis; Gilbert A. Rannick, Johnson City; John G. Riddler, Jackson; Charles R. Zirkle, Knoxville; Mr. Clyde York, Columbia; Mr. Charles L. Cornelius, Sr., Nashville; R. H. Kampmeier, Ex-officio, Nashville.
Executive Sub-Committee—B. K. Hibbett, III, Chairman, Nashville; Robert N. Sadler, Nashville; James J. Callaway, Nashville; Thomas F. Parrish, Nashville; Mr. Charles L. Cornelius, Sr., Nashville; R. H. Kampmeier, Ex-officio, Nashville.

Advisory Committee to the State Department of Public Welfare—Aubrey Harwell, Chairman, Nashville (1965); Carl A. Hartung, Chattanooga (1967); F. T. Billings, Jr., Nashville (1964); Harold J. Starr, Chattanooga (1966); Joseph J. Baker, Nashville (1966).

Communications and Public Service Committee—R. A. Calandruccio, Chairman, Memphis (1964); Addison B. Scoville, Jr., Nashville (1964); Malcolm Campbell, Johnson City (1965); Wm. A. Garrott, Cleveland (1966); Wm. K. Owen, Pulaski (1964); Blair D. Erb, Jackson (1965); Roy L. McDonald, Oneida (1964); Charles L. Clarke, Memphis (1966); Morse Kochtitzky, Nashville (1966); R. H. Kampmeier, Ex-officio (1964).
Members State-at-Large—Walter Benedict, Knoxville (1965); J. Kelley Avery, Union City (1966); Augustus McCravey, Chattanooga (1964); Thomas F. Frist, Nashville (1964); Geo. D. Dodson, Jackson (1966); Herman J. Kaplan, Nashville (1966).
Executive Sub-Committee—R. A. Calandruccio, Chairman, Memphis (1964); Addison B. Scoville, Jr., Nashville (1964); R. H. Kampmeier, Ex-officio (1964); Thomas F. Frist, Nashville (1964); Morse Kochtitzky, Nashville (1966); Herman J. Kaplan, Nashville (1966).

Grievance Committee—Harmon L. Monroe, Chairman, Erwin (1964); W. O. Vaughan, Nashville (1965); William J. Sheridan, Chattanooga (1966).

Rural Health Committee—Julian C. Lentz, Jr., Chairman, Maryville (1965); Wm. N. Cook, Columbia (1966); Robert H. Elder, Cedar Hill (1966); John B. Dorian, Memphis (1966); Eugene M. Ryan, South Pittsburg (1966).

Committee on Tennessee Medical Foundation—Harrison J. Shull, Chairman, Nashville (1966); Thomas G. Dorrity, Memphis (1966); B. M. Overholt, Knoxville (1966); Julian K. Welch, Jr., Brownsville (1964); Daugh W. Smith, Nashville (1964); Ralph H. Monger, Knoxville (1964); Robert N. Buchanan, Jr., Nashville (1965); J. Paul Baird, Dyersburg (1965); John E. Kesterson, Knoxville (1965).

SPECIAL COMMITTEES

Consultative Committee on Administration of Voluntary Prepaid Medical Care Plans—Carl N. Gessler, Chairman, Nashville; R. B. Wood, Knoxville; H. P. Clemmer, Milan; William R. Bishop, Chattanooga; J. J. Range, Johnson City; George L. Smith, Winchester; J. Palmer Moss, Memphis; Garth E. Fort, Nashville; Baker Hubbard, Jackson; Howard A. Boone, Memphis.

Committee on Disaster Planning—George R. Livermore, Jr., Memphis, Chairman; Harmon L. Monroe, Erwin; Fred D. Ownby, Nashville; Bruce R. McCampbell, Knoxville; Charles W. Reavis, Chattanooga; Nat Winston, Chattanooga; Henry Packer, Memphis; Wm. F. Gallivan, Knoxville; John Beveridge, Nashville; Billy N. Golden, Kingsport.

Committee on Occupational Health—George E. Duncan, Chairman, Nashville; Moore J. Smith, Chattanooga; Peter J. Flippen, Tullahoma; Louis G. Britt, Memphis; H. L. Monroe, Erwin; Dudley G. Lockwood, Jr., Memphis; Alfred N. Costner, Johnson City.

Liaison Committee to the United Mine Workers of America—John H. Saffold, Chairman, Knoxville; Cecil E. Newell, Chattanooga; B. M. Overholt, Knoxville; Charles P. Wofford, Johnson City.

Advisory Committee to the Woman's Auxiliary—Roland H. Myers, Chairman, Memphis; Robert L. Akin, Knoxville; Fred E. Cowden, Nashville; E. E. Edwards, McKenzie.

Committee on Blood Banks—Merlin L. Trumbull, Chairman, Memphis; L. W. Diggs, Memphis; John W. Adams, Jr., Chattanooga; David K. Gotwald, Nashville; R. J. Leffler, Knoxville; Thomas P. Potter, Johnson City.

Committee on Governmental Medical Services—E. G. Kelly, Chairman, Memphis; J. Paul Baird, Dyersburg; Thurman Shipley, Cookeville; Cleo M. Miller, Nashville; Charles C. Smeltzer, Knoxville; George W. Holcomb, Jr., Nashville; Thomas L. Waring, Memphis; C. Kenneth Slade, Johnson City; Charles N. Hickman, Bells.
Committee on Mental Health—Frank H. Luton, Chairman, Nashville; Joseph W. Johnson, Jr., Co-Chairman, Chattanooga; E. L. Caudill, Jr., Elizabethton; Robert M. Foote, Nashville; Hollis C. Miles, Chattanooga; Joseph J. Baker, Nashville; Dan Sanders, Nashville; Richard F. Kelsey, Memphis; Carl C. Gardner, Jr., Columbia; John D. Griffith, Clarksville; O. S. Luton, Erin; P. J. Sparer, Memphis; Clifton E. Irwin, Knoxville; Robert G. Jordan, Memphis; Robert B. Hagood, Chattanooga.

Committee on Health Project Contest—Lawrence L. Cohen, Chairman, Memphis; William N. Dawson, Maryville; George K. Henshall, Chattanooga; Mrs. W. E. Van Order, Chattanooga; Mrs. James K. McQuire, Memphis.

Committee on Sight Conservation—Fred Rowe, Jr., Chairman, Nashville; David H. Turner, Chattanooga; Reese W. Patterson, Jr., Knoxville; William H. Roberts, Humboldt; James W. Wilkes, Jr., Columbia; Chas. O. Parker, Johnson City; Howard R. Kennedy, Clarksville; G. H. Berryhill, Jackson; William A. Garrott, Cleveland; Roland H. Myers, Memphis.

Tennessee Committee for the American Medical Education and Research Foundation—David S. Carroll, Chairman, Memphis; B. F. Byrd, Jr., Nashville; D. T. Rolfe, Nashville.

Interprofessional Liaison Committee—Robert M. Ruch, Chairman, Memphis; Fred P. Sage, Memphis; Robert J. Allen, Elizabethton; William H. Edwards, Nashville; W. Houston Price, Chattanooga.

Committee on Youth and Education—John H. Burkhart, Chairman, Knoxville; Robert G. Brashear, Knoxville; Robert M. Foote, Nashville; Dan Sanders, Nashville; Minnie R. Vance, Chattanooga; Ben D. Hall, Johnson City; Lawrence L. Cohen, Memphis; W. M. Phillips, Trenton; J. Kelley Avery, Union City.

Committee on Medicine and Religion—H. Dewey Peters, Chairman, Knoxville; T. G. Pennington, Nashville; Gilbert J. Levy, Memphis; J. Malcolm Aste, Memphis; Ira L Arnold, Chattanooga.

OFFICERS OF THE TENNESSEE MEDICAL ASSOCIATION, 1963-64

President—Bland W. Cannon, M.D., Suite 402-B, 20 So. Dudley Street, Memphis
President-Elect—R. H. Kampmeier, M.D., Vanderbilt Hospital, Nashville
Vice-President—Joseph L. Raulston, M.D., 5338 Broadway, N.E., Knoxville
Vice-President—Charles A. Trahern, M.D., 1724 Memorial Drive, Clarksville
Vice-President—Henry B. Gotten, M.D., 1412 Madison Avenue, Memphis
Secretary—John H. Burkhart, M.D., 3000 No. Broadway, Knoxville
Executive Director—Mr. J. E. Ballentine, 112 Louise Avenue, Nashville 5

BOARD OF TRUSTEES

*Robert M. Finks, M.D., Chairman and Treasurer (1964) 2122 West End Ave., Nashville
*J. Malcolm Aste, M.D., (1964) 188 South Bellevue, Memphis
John H. Burkhart, M.D., (1964) 3000 No. Broadway, Knoxville
Bland W. Cannon, M.D., (1965) 402-B, 20 South Dudley Street, Memphis
*E. L. Caudill, Jr., M.D., (1966) 114 East H Street, Elizabethton
C. D. Hawkes, M.D., (1966) 220 So. Claybrook Street, Memphis
G. Baker Hubbard, M.D., (1966) Jackson Clinic, Jackson
*Joseph W. Johnson, Jr., M.D., (1965) Interstate Building, Chattanooga
*R. H. Kampmeier, M.D., (1966) Vanderbilt Hospital, Nashville
K. M. Kressenberg, M.D., (1966) 215 Cedar Lane, Pulaski
William J. Sheridan, M.D., (1964) Medical Arts Building, Chattanooga
*Executive Committee of Board of Trustees.

SPEAKER OF THE HOUSE

J. Malcolm Aste, M.D., 188 South Bellevue, Memphis
Vice-Speaker—Tom E. Nesbitt, M.D., 1921 Hayes Street, Nashville

COUNCILORS

First District—J. O. Hale, M.D., 401 North Boone St., Johnson City (1964)
Second District—B. M. Overholt, M.D., 717 Cumberland Avenue, S.W., Knoxville (1965)
Third District—M. F. Langston, M.D., 103 Palisades, Signal Mountain (1964)
Fourth District—Kenneth L. Haile, M.D., 137 W. Second Street, Cookeville (1965)
Fifth District—Coulter S. Young, M.D., Manchester (1964)
Sixth District—Harry T. Moore, Jr., M.D., 326 Mid-State Medical Center, Nashville (1965)
Seventh District—Wm. K. Owen, M.D., Pulaski (1964)
Eighth District—O. M. McCallum, M.D., Henderson (1965)
Ninth District—R. David Taylor, M.D., 620 Main Street, Dyersburg (1964)
Tenth District—Francis H. Cole, M.D., 188 South Bellevue, *Chairman*, Memphis (1965)

DELEGATES TO THE AMA

Alvin J. Ingram, M.D., 869 Madison Avenue, Memphis (1965)
Chas. C. Smeltzer, M.D., 521 W. Cumberland Avenue, Knoxville (1964)
Daugh W. Smith, M.D., 1926 Hayes Street, Nashville (1965)
Alternates:
Julian K. Welch, Jr., M.D., Brownsville (1965)
Wm. J. Sheridan, M.D., Medical Arts Building, Chattanooga (1964)
W. O. Vaughan, M.D., 2103 Hayes Street, Nashville (1965)

PRESIDENTS AND SECRETARIES OF COUNTY MEDICAL SOCIETIES, 1963-64

COUNTY	PRESIDENTS	SECRETARIES
Bedford County	Alfred Farrar, M.D., Shelbyville	W. L. Chambers, M.D., Gunter Building, Shelbyville
Benton-Humphreys County	John H. Overall, M.D., Camden	Hiram C. Capps, M.D., Waverly
Blount County	Homer L. Isbell, M.D., Med. Arts Bldg., Maryville	Oliver K. Agee, M.D., Arcade—Midland Center, Alcoa
Bradley County	Jas. C. Lowe, M.D., 755 Broad Street, N.W., Cleveland	James L. Allen, M.D., Calhoun
Campbell County	M. L. Davis, M.D., Lafollette	Roscoe C. Pryse, M.D., Lafollette
Chattanooga-Hamilton County	M. F. Langston, M.D., 103 Palisades Drive, Signal Mountain	C. Robert Clark, M.D., 210 Med. Arts Building Chattanooga Mrs. Flo Richardson, 109 Medical Arts Building, Chattanooga—Exec. Secy.
Cocke County	W. E. McGaha, M.D., 302 E. Main St., Newport	R. B. McMahan, M.D., 501 E. Main St., Newport
Coffee County	Edwin E. Gray, Jr., M.D., 108 W. Blackwell, Tullahoma	John A. Shields, M.D., Manchester
Consolidated Medical Assembly of West Tennessee	Eugene C. Crafton, M.D., Trenton	George B. Wyatt, M.D., 686 W. Forest Avenue, Jackson
Cumberland County	Arthur K. Husband, M.D., Crossville	Jas. T. Callis, M.D., Crossville
Nashville Academy of Medicine Davidson County	Walter L. Diveley, M.D., Medical Arts Building, Nashville	Tom E. Nesbitt, M.D., 1921 Hayes Street, Nashville Mr. Jack Drury, 112 Louise Avenue, Nashville—Executive Secretary
Dickson County	L. C. Jackson, M.D., Dickson	James T. Jackson, M.D., Dickson
Fentress County	Guy C. Pinkley, M.D., Jamestown	B. F. Allred, M.D., Jamestown
Franklin County	A. Reynolds Fite, M.D., Winchester	George L. Smith, M.D., Winchester
Giles County	J. U. Speer, M.D., 522 Jefferson, Pulaski	K. M. Kressenberg, M.D., 215 Cedar Lane, Pulaski
Greene County	W. L. McGuffin, M.D., 104 N. College, Greeneville	James R. McKinney, M.D., Takoma Hospital, Greeneville
Hamblen County	T. J. Hill, M.D., Citizens Bank, Rutledge	J. W. Richardson, M.D., 131 N. Daisy St., Morristown
Hawkins County	J. S. Lyons, M.D., 100 N. Church Street, Rogersville	Wm. H. Lyons, M.D., Rogersville
Henry County	Kenneth Ross, M.D., Paris Clinic, Paris	A. C. Dunlap, M.D., 302 Caldwell, Paris
Hickman-Perry County	Don L. Gaines, M.D., Hohenwald	Parker D. Elrod, M.D., Centerville
Jackson County	L. R. Dudney, M.D., Gainesboro	J. S. Johnson, M.D., Gainesboro
Knoxville Academy of Medicine	Richard C. Sexton, M.D., Blount Professional Bldg., Knoxville	Ray J. Leffler, M.D., East Tenn. Baptist Hospital, Knoxville
Lawrence County	Boyd P. Davidson, M.D., 369 Brink St., Lawrenceburg	James C. Hudgins, M.D., 200 S. Military, Lawrenceburg
Lincoln County	Paul E. Whittemore, M.D., 214 West College, Fayetteville	Anne U. Bolner, M.D., 204 N. Main, Fayetteville
Macon County	M. E. Painter, M.D., Lafayette	Jack C. Clark, M.D., Lafayette
Marshall County	J. W. Limbaugh, M.D., Med. Arts Bldg., Lewisburg	W. S. Poarch, M.D., Lewisburg
Maury County	William G. Fuqua, M.D., Hatcher Lane, Columbia	W. N. Jernigan, M.D., 209 W 8th Street, Columbia
McMinn County	Robert W. Trotter, M.D., Athens	James Cleveland, M.D., Englewood
Memphis-Shelby County	Gilbert J. Levy, M.D., 188 S. Bellevue, Memphis 4	R. A. Calandruccio, M.D., 869 Madison Ave., Memphis 3 Mr. Les Adams, 774 Adams Avenue, Memphis—Executive Secretary
Monroe County	R. C. Kimbrough, M.D., Madisonville	Jas. H. Barnes, M.D., Sweetwater
Montgomery County	Bryan T. Iglehart, M.D., 1724 Memorial Dr., Clarksville	F. C. Petty, M.D., Memorial Hospital, X-ray Dept., Madison St., Clarksville
Northwest Tennessee Academy of Medicine	R. David Taylor, M.D., Baird-Brewer Hosp., Dyersburg	W. I. Thornton, Jr., M.D., 402 Tickle St., Dyersburg
Overton County	H. B. Nevans, M.D., Livingston	W. G. Quarles, M.D., Livingston
Putnam County	J. T. DeBerry, M.D., 141 E. Broad St., Cookeville	Thurman Shipley, M.D., 135 W. 2nd St., Cookeville
Roane-Anderson County	Earl Eversole, Jr., M.D., Med. Arts Bldg., Oak Ridge	Robert DePersio, M.D., Med. Arts Bldg., Oak Ridge
Robertson County	W. P. Stone, M.D., 7th & Garner St., Springfield	Sue C. Atwood, M.D., 500 Main, Springfield
Rutherford County	B. S. Davison, M.D., 320 E. Main Street, Murfreesboro	Radford Smith, M.D., 420 N. University St., Murfreesboro
Scott County	H. M. Leeds, M.D., Oneida	Roy L. McDonald, M.D., Oneida
Sevier County	Robert A. Broady, M.D., Sevierville	John M. Hickey, Jr., M.D., Sevierville
Smith County	Hugh E. Green, M.D., Carthage	David G. Petty, M.D., Carthage
Sullivan-Johnson County	J. W. Erwin, M.D., Sullivan Co. Health Dept., Blountville	James G. McFaddin, M.D., 120 Blountville Highway, Bristol
Sumner County	Ira N. Kelley, M.D., Hartsville	Thomas F. Carter, M.D., Westmoreland
Tipton County	James S. Ruffin, M.D., Covington	Warren A. Alexander, M.D., Covington
Warren County	James L. Moore, M.D., Morford St., McMinnville	W. B. Bigbee, M.D., 202 Morford St., McMinnville
Washington-Carter-Unicoi County	Ben D. Hall, M.D., 115 W. Fairview Avenue, Johnson City	Gilbert Rannick, M.D., 107 W. Fairview Ave., Johnson City
Weakley County	Nathan F. Porter, M.D., Greenfield	E. T. Frank, M.D., Greenfield
White County	W. H. Anderson, M.D., Sparta	Robert F. Baker, M.D., 233 E. Broadway, Sparta
Williamson County	Adolphus Bray, M.D., Franklin	Joseph L. Willoughby, M.D., Franklin
Wilson County	James C. Bradshaw, Jr., M.D., McFarland Hospital, Lebanon	T. R. Puryear, M.D., 239 E. Main, Lebanon

IN DIARRHEAS



Patient: W. O. **Age:** 45 **Sex:** F **Weight** 96

Diagnosis: Functional diarrhea

Results: Definite **Side Effects:** None

Comment: Patient has been on R-1132 (Lomotil) for fifteen months with definite improvement.

ACUTE

RECURRENT

CHRONIC

LOMOTIL® ANTIDIARRHEAL TABLETS / LIQUID

brand of Diphenoxylate Hydrochloride with Atropine Sulfate

PROMPT · SAFE · EFFICIENT



LOMOTIL directly controls the *mechanism* of diarrhea. Therefore, it acts to give symptomatic relief in all diarrheas.

Lomotil promptly arrests acute diarrhea and controls chronic or refractory diarrhea with a high degree of safety.

Pharmacologic considerations indicate that Lomotil acts on the smooth muscle of the intestines and thus lowers the excessive propulsive motility responsible for increased fluidity and frequency of stools. This localized action makes Lomotil unusually free of secondary effects.

By reducing excess propulsive motility, Lomotil assures safe, selective symptomatic control of virtually all diarrheas.

Dosage: For adults the recommended initial dosage is two tablets (2.5 mg. each) three or four times daily. Lomotil maintenance dosage may be as low as two tablets daily.

Lomotil is supplied as unscored, uncoated white tablets of 2.5 mg. and as liquid containing 2.5 mg. in each 5 cc. A subtherapeutic amount of atropine sulfate (0.025 mg.) is added to each tablet and each 5 cc. of the liquid to discourage deliberate overdosage. Recommended dosage schedules should not be exceeded.

Note: Lomotil is an exempt preparation under Federal narcotic statutes.

Detailed information and directions for use in children and adults are available in Physicians' Product Brochure No. 81. G. D. Searle & Co., P. O. Box 5110, Chicago 80, Illinois.

G. D. SEARLE & CO.

Research in the Service of Medicine

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY

Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
50/150	84.67	202.61
100/300	92.29	220.83
200/300	96.32	230.48
300/600	112.80	253.20
500/1 Million	132.83	278.85
1 Million/1 Million	139.55	294.93

X-RAY—RADIUM OR SHOCK THERAPY

5/15	89.60	152.00
50/150	169.34	287.28
100/300	184.58	313.12
200/300	192.64	326.80
300/600	213.60	354.00
500/1 Million	237.66	383.68
1 Million/1 Million	251.10	406.48

1. Partnership liability, increase premium for each partner by 20%
2. Anesthesiologists take Physicians rates.
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Other limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

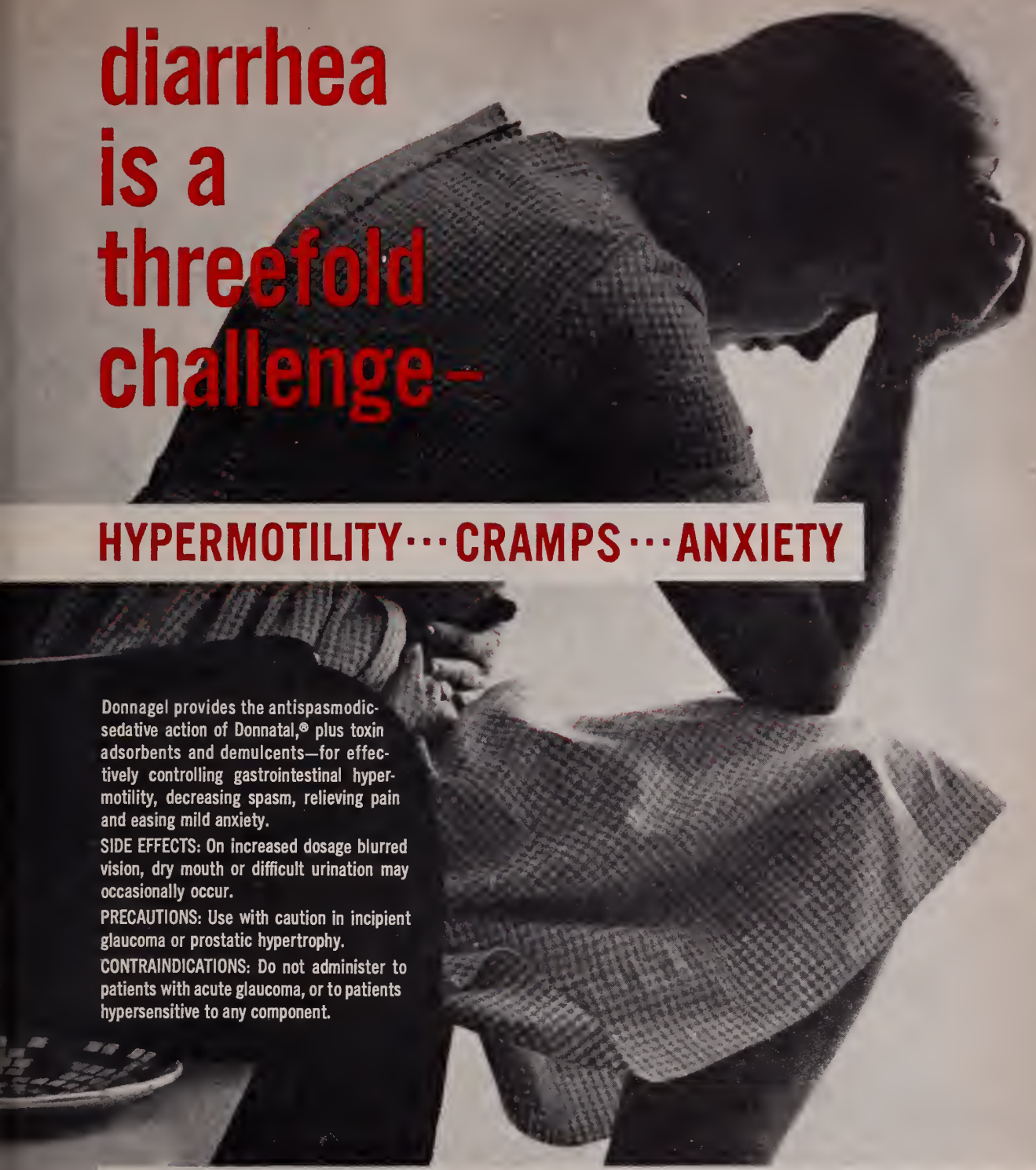
Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability

*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.

diarrhea is a threefold challenge–

HYPERMOTILITY···CRAMPS···ANXIETY



Donnagel provides the antispasmodic-sedative action of Donnatal,® plus toxin adsorbents and demulcents—for effectively controlling gastrointestinal hypermotility, decreasing spasm, relieving pain and easing mild anxiety.

SIDE EFFECTS: On increased dosage blurred vision, dry mouth or difficult urination may occasionally occur.

PRECAUTIONS: Use with caution in incipient glaucoma or prostatic hypertrophy.

CONTRAINDICATIONS: Do not administer to patients with acute glaucoma, or to patients hypersensitive to any component.

Donnagel®

Robins

Available also as DONNAGEL®-PG...same formula plus powdered opium USP 24 mg. (equiv. to paregoric 6 ml.).
(Warning: May be habit-forming)

A. H. ROBINS CO., INC., Richmond 20, Virginia

Each fluidounce (30 cc.) contains:

Kaolin	6.0 Gm.
Pectin	142.8 mg.
Donnatal—Natural belladonna alkaloids	
hyoscyamine sulfate	0.1037 mg.
atropine sulfate	0.0194 mg.
hyoscine hydrobromide	0.0065 mg.
Phenobarbital (¼ gr.)	16.2 mg.

(Warning: May be habit-forming)



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE-MARK



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can 75c
Pt. bottle with dispensing can $2.50
Qt. bottle with dispensing can $4.00

Plus post.

White Surgical Supply Co.

SURGICAL SUPPLIES & ACCESSORIES

515 West Church Ave. Knoxville 7, Tennessee

Telephone 3-1186

ACCEPTED AMERICAN MEDICAL ASSN.

HOMOGENIZED VITAMIN D MILK PRODUCES SOFT CURD

(400 U.S.P. Units Vitamin D Per Quart)

"A" Grade Sealtest MILK Phone AL 5-6451

Fortified Fat Free Milk

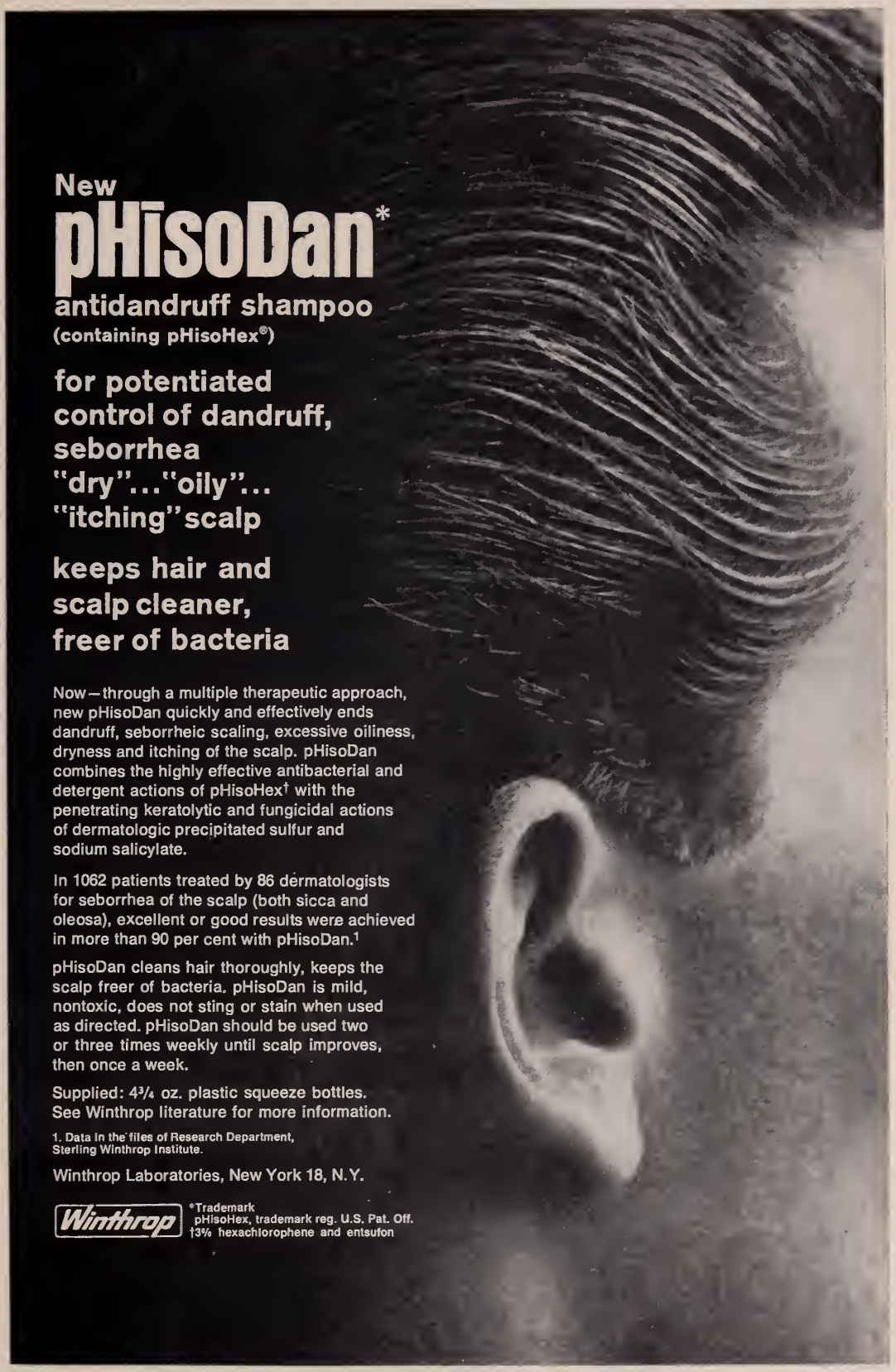
(2000 Units Vitamin A—400 Units Vitamin D)

NASHVILLE PURE MILK CO.

PATRONIZE

OUR

ADVERTISERS



New
pHisoDan*
antidandruff shampoo
(containing pHisoHex®)

for potentiated control of dandruff, seborrhea "dry"..."oily"... "itching" scalp

keeps hair and scalp cleaner, freer of bacteria

Now—through a multiple therapeutic approach, new pHisoDan quickly and effectively ends dandruff, seborrheic scaling, excessive oiliness, dryness and itching of the scalp. pHisoDan combines the highly effective antibacterial and detergent actions of pHisoHex† with the penetrating keratolytic and fungicidal actions of dermatologic precipitated sulfur and sodium salicylate.

In 1062 patients treated by 86 dermatologists for seborrhea of the scalp (both sicca and oleosa), excellent or good results were achieved in more than 90 per cent with pHisoDan.[1]

pHisoDan cleans hair thoroughly, keeps the scalp freer of bacteria. pHisoDan is mild, nontoxic, does not sting or stain when used as directed. pHisoDan should be used two or three times weekly until scalp improves, then once a week.

Supplied: 4¾ oz. plastic squeeze bottles. See Winthrop literature for more information.

1. Data in the files of Research Department, Sterling Winthrop Institute.

Winthrop Laboratories, New York 18, N.Y.

Winthrop

*Trademark
pHisoHex, trademark reg. U.S. Pat. Off.
†3% hexachlorophene and entsufon

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

WHO PAYS THE OFFICE RENT?

And telephone bill...and utilities...and employee salaries...*if YOU are sick or injured?*

Physicians Mutual Insurance Company (The Doctors' Company) will help pay all of your usual office expenses when you are sick or disabled—if you are the fortunate owner of our new, low-rate Office Overhead Expense Policy.

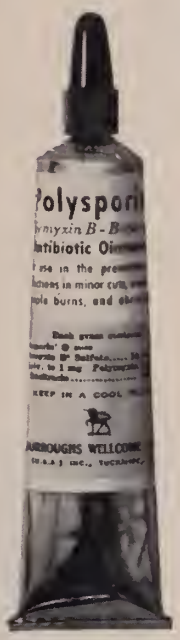
Premiums are tax deductible, too!

Write today for free information . . without obligation.

PHYSICIANS MUTUAL INSURANCE COMPANY

115 South 42nd St. Omaha 31, Nebraska

in treating topical infections, no need to sensitize the patient



USE 'POLYSPORIN'® brand POLYMYXIN B-BACITRACIN ANTIBIOTIC OINTMENT

broad-spectrum antibiotic therapy with minimum risk of sensitization

Caution: As with other antibiotic products, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **Supplied:** in ½ oz. and 1 oz. tubes.

Complete literature available on request from Professional Services Dept. PML.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

Reprint Price Schedule

THE JOURNAL OF TENNESSEE MEDICAL ASSOCIATION

	100	200	300	400	500	600	700	800	900	1000	Add'l 1000
2 pages	12.80	14.15	15.60	17.30	17.65	18.00	18.55	19.50	20.70	21.85	12.00
4 pages	18.80	23.00	25.60	28.50	29.60	30.25	31.20	33.55	35.65	37.80	22.60
8 pages	36.80	41.60	46.15	51.00	52.30	53.00	54.45	57.85	61.50	64.90	35.00
12 pages	48.10	53.40	58.60	63.75	64.70	65.15	66.60	70.80	75.00	79.00	41.60
Envelopes 8¼x11¼	13.30	16.00	18.50	21.30	22.50	24.00	26.40	28.80	31.20	33.60	26.40

Reprints of articles in THE JOURNAL OF TENNESSEE MEDICAL ASSOCIATION are available at the following prices. Orders should be placed within 30 days following publication of the journal in which the article appears.

The above prices are for reprints supplied in the page size of THE JOURNAL OF TENNESSEE MEDICAL ASSOCIATION. If smaller or larger sizes are required, special prices must be obtained. Address

McQUIDDY PRINTING COMPANY NASHVILLE, TENNESSEE

Now Available

TO MEMBERS OF THE TENNESSEE MEDICAL ASSOCIATION

Who can qualify for this insurance

$500.00 Per month DISABILITY INCOME PLAN—NON CANCELLABLE

Pays LIFETIME for accident—10 YEARS CERTAIN FOR ILLNESS

DOUBLE BENEFITS FOR ANY THREE MONTH PERIOD OF HOSPITALIZATION

GENERAL PROVISIONS:

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.

Complete aviation coverage on both Monthly Benefit and Principal Sum both private and commercial flying

Monthly benefits payable from the first day of disability

May also be issued with elimination periods if desired

Individually NON CANCELLABLE except for—

1. Non Payment of Premium within the grace period
2. Retired from practice
3. Loss of membership in Tennessee Medical Association

Guaranteed renewable to age 70. Renewable thereafter at the option of the Company

For further information please contact

Sovereign States Insurance Company

1808 West End Avenue

Post Office Box 767

Nashville, Tennessee

Carl Yeakey, Director of Professional Services

"A Participating Insurance Company Underwriting The Tennessee Plan"



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

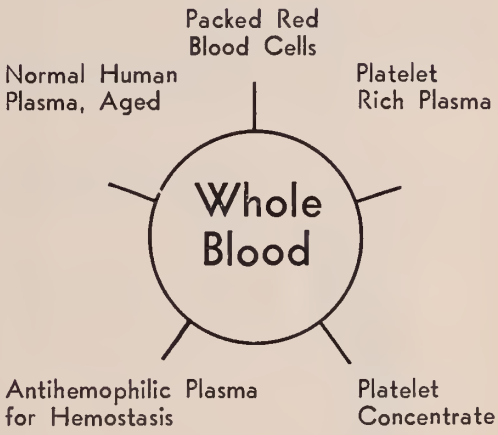
- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN
Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities
KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

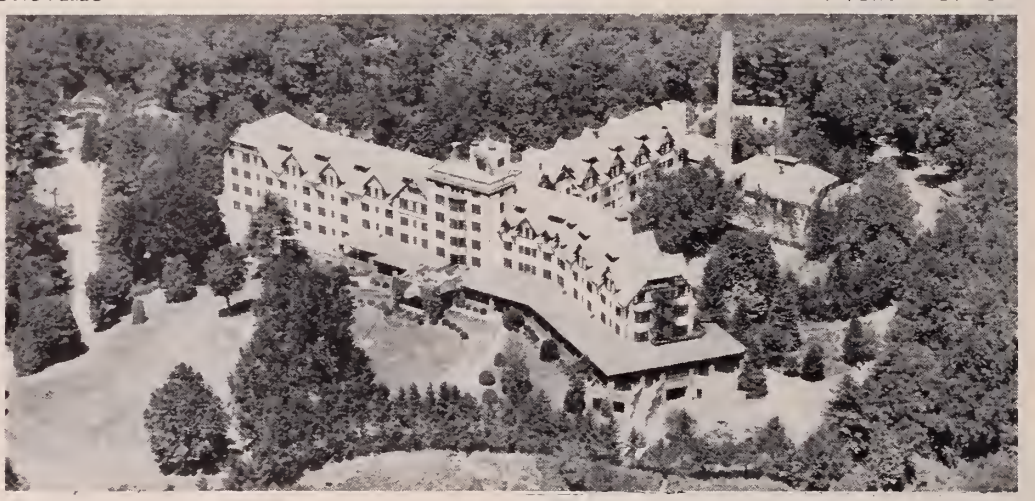
All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE

APPALACHIAN HALL
Established 1916

Asheville North Carolina



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

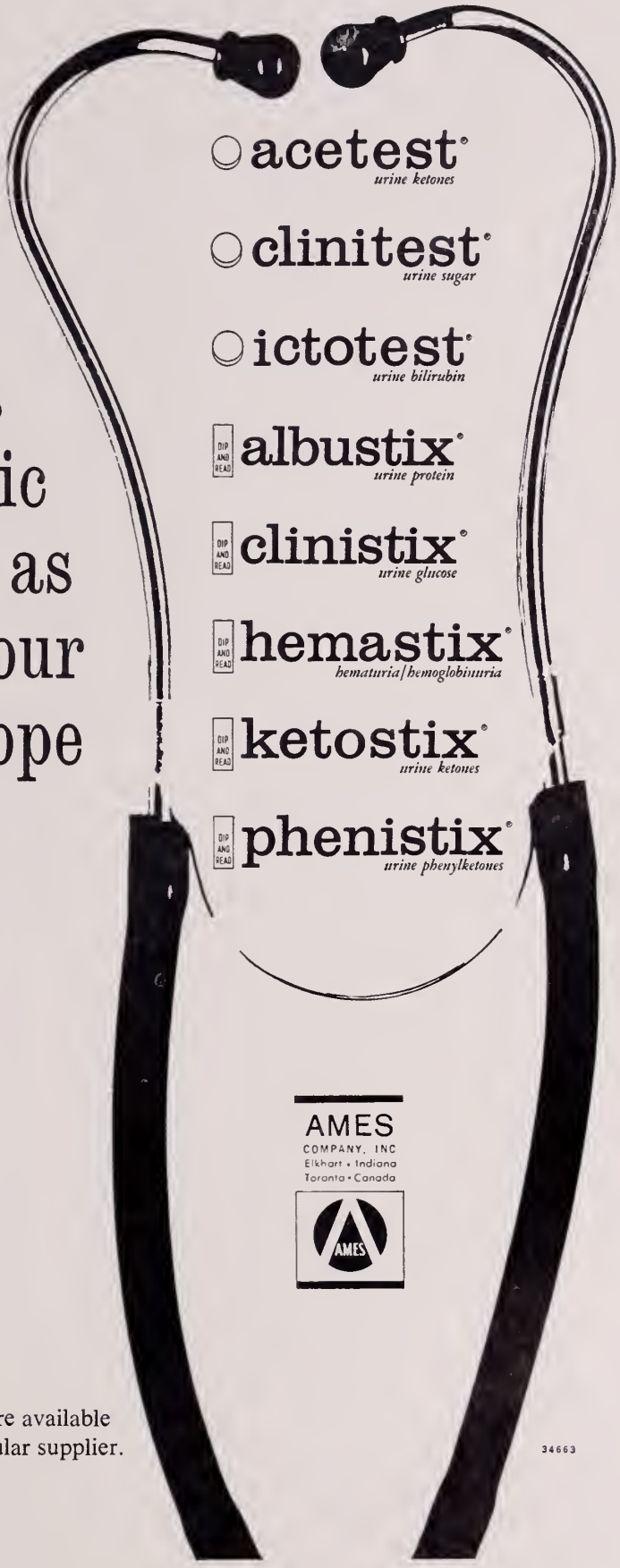
WM. RAY GRIFFIN, JR., M.D. MARK A. GRIFFIN, SR., M.D.
ROBERT A. GRIFFIN, M.D. MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

American Cyanamid Co.	XI	Mayrand, Inc., Pharmaceuticals	X
Ames Co., Inc.	XLI	Mutual Benefit Life Ins. Co.	XVI
Appalachian Hall	XL	Nashville Pure Milk Co.	XXXIV
Arnar-Stone Laboratories, Inc.	IX	Nashville Surgical Supply Co., Inc.	XXIV
Birtcher Medical Electronics	XXVI	Parke-Davis and Company	II, III
Blood Bank Foundation	XXXIX	Physicians Mutual Ins. Co.	XXXVI
Brawner Hospital, Inc.	Last Page Reading	Poythress, Wm. P. & Co.	VIII
Brayten Pharmaceutical Company	XXV	Robins, A. H. Co., Inc.	XXXIII
Burroughs Wellcome & Co.	XII, XXXVII	Roche Laboratories	XLII
City View Sanitarium	XXXVI	St. Albans	XVIII
Coca-Cola	XXXIV	Saunders, W. B. Co.	XVII
Dorsey Laboratories	XXIII	Schering	XXIX
Endo Laboratories	XIX	Searle, G. D. & Co.	XXXI
Farringer & Company	XXXII	Smith, Kline & French Laboratories	XIV
Guild Opticians	XXVIII	Smith, Reed, Thompson & Ellis Co.	XXII
Highland Hospital, Inc.	XXVIII	Sovereign States Ins. Co.	XXXVIII
Hill Crest Sanitarium	XXVI	Tafel Surgical Supply Co., Inc.	XXXVI
Kay Surgical, Inc.	XXXIX	Wallace Laboratories VI, VII, XIII, XX, XXI, XXVII	
Lily, Eli and Co.	I, XXX	White Surgical Supply Co.	XXXIV
		Winthrop Laboratories	V, XV, XXXV

urine tests as basic as your stethoscope



acetest®
urine ketones

clinitest®
urine sugar

ictotest®
urine bilirubin

DIP AND READ albustix®
urine protein

DIP AND READ clinistix®
urine glucose

DIP AND READ hemastix®
hematuria/hemoglobinuria

DIP AND READ ketostix®
urine ketones

DIP AND READ phenistix®
urine phenylketones

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

AMES products are available through your regular supplier.

34663



Formerly nervous and tense, now better able to...

enjoy her family

This, in essence, is what happens when you place a patient on Librium (chlordiazepoxide HCl). Since this agent generally relieves anxiety and tension without dulling mental clarity or inducing drowsiness, most patients become better able to function normally, take an active interest in family and surroundings, meet and solve daily problems. This antianxiety agent is virtually free from extrapyramidal side effects, and does not produce or deepen depression.

DOSAGE: **Oral**—Usual adult dose in mild to moderate anxiety and tension is 5 or 10 mg, 3 or 4 times daily; in severe anxiety and tension, 20 or 25 mg, 3 or 4 times daily. **Parenteral**—To control acute conditions, the usual initial adult dose is 50 to 100 mg I.M. or I.V.; not more than 300 mg should be given during a 6-hour period. ☐ SIDE EFFECTS: **Oral**—Drowsiness and ataxia, usually dose-related, have been reported in some patients—particularly the elderly and debilitated. Paradoxical reactions, **i.e.**, excitement, stimulation, elevation of affect and acute rage, have been reported in psychiatric patients; these reactions may be secondary to relief of anxiety and should be watched for in the early stages of therapy. Other infrequent dose-related side effects have included isolated instances of minor skin rashes, minor menstrual irregularities, nausea, constipation, increased and decreased libido. **Parenteral**—Following parenteral administration some patients may become drowsy or unsteady. The injectable form has occasionally produced mild, transitory fluctuations of blood pressure. ☐ PRECAUTIONS: **Oral**—In elderly, debilitated patients, limit dosage to smallest effective amount to preclude development of ataxia or oversedation (not more than 10 mg per day initially, to be increased gradually as needed and tolerated). Until the correct maintenance dosage is established, patients receiving this agent should be advised against possibly hazardous procedures requiring complete mental alertness or physical coordination. Although this agent is a valuable aid in acute and chronic alcoholism, caution patients about possible combined effects with alcohol. Caution should be exercised in administering it to addiction-prone individuals. Careful consideration should be given to the pharmacology of any agents to be employed with Librium (chlordiazepoxide HCl)—particularly the MAO inhibitors and phenothiazines. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests may be advisable in protracted treatment. **Parenteral**—Parenteral administration is indicated primarily in acute states, and patients receiving this form of therapy should be kept under observation, preferably in bed, for a period of up to three hours. Ambulatory patients should not be permitted to operate a vehicle following injection. The usual precautions of reduced dosage should be observed when treating patients with impaired renal or hepatic function. The injectable form should not be given to patients in shock or comatose states. Reduced dosage (usually 25 to 50 mg) should be used for elderly or debilitated patients, and for children.

Anxiety and tension relieved
Alertness maintained

Librium®
(chlordiazepoxide HCl)

the successor
to the tranquilizers

ROCHE
ROCHE

THE JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION

TENNESSEE VALLEY MEDICAL ASSEMBLY
Read House, Chattanooga, Tennessee
September 30 and October 1, 1963

JULY, 1963

Volume 56 **Number 7**

of Contents on Page IV
to Advertisers on Page XLVIII

Simple diarrhea?

Control it with
safe / effective / economical / pleasant-tasting

Quintess®
(attapulgite compound, Lilly)

Available in 6-ounce plastic and 1-pint glass bottles.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

362030

Helps the epileptic to realize his potential

DILANTIN®

(DIPHENYLHYDANTOIN SODIUM)

PARKE-DAVIS



"The most effective form of emotional approach remains the demonstration to the patient that the seizure phenomena can be adequately controlled with anticonvulsant medication."[1]

At present, diphenylhydantoin sodium is generally regarded as the standard in anticonvulsant medication because of its effectiveness in controlling grand mal and psychomotor seizures.[2-10] It possesses a wide margin of safety, and incidence of side effects is minimal.[4] With this agent, oversedation is not a problem.[3] Moreover, its use is often accompanied by improvement in the patient's memory, intellectual performance, and emotional stability.[11]

Indications: Grand mal epilepsy and certain other convulsive states.

Precautions: Toxic effects are infrequent: allergic phenomena such as polyarthropathy, fever, skin eruptions, and acute generalized morbilliform eruptions with or without fever. Rarely, dermatitis goes on to exfoliation with hepatitis, and further dosage is contraindicated. Eruptions then usually subside. Though mild and rarely an indication for stopping dosage, gingival hypertrophy, hirsutism, and excessive motor activity are occasionally encountered, especially in children, adolescents, and young adults. During initial treatment, minor side effects may include gastric distress, nausea, weight loss, transient nervousness, sleeplessness, and a feeling of unsteadiness. All usually subside with continued use. Megaloblastic anemia has been reported. Nystagmus may develop. Nystagmus in combination with diplopia and ataxia indicates dosage should be reduced. Periodic examination of the blood is advisable.

DILANTIN Sodium (diphenylhydantoin sodium) is available in several forms including Kapseals,® 0.03 Gm. and 0.1 Gm., bottles of 100 and 1,000.

REFERENCES: (1) Hammill, J. F.: J. Chron. Dis. 8:448, 1958. (2) Roseman, E.: Neurology 11:912, 1961. (3) Bray, P. F.: Pediatrics 23:151, 1959. (4) Chao, D. H.; Druckman, R., & Kellaway, P.: Convulsive Disorders of Children, Philadelphia, W. B. Saunders Company, 1958, p. 120. (5) Crawley, J. W.: M. Clin. North America 42:317, 1958. (6) Livingston, S.: The Diagnosis and Treatment of Convulsive Disorders in Children, Springfield, Ill., Charles C Thomas, 1954, p. 190. (7) Ibid.: Postgrad. Med. 20:584, 1956. (8) Merritt, H. H.: Brit. M. J. 1:666, 1958. (9) Carter, C. H.: Arch. Neurol & Psychiat. 79:136, 1958. (10) Thomas, M. H., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, The Williams & Wilkins Company, 1956, pp. 37-48. (11) Goodman, L. S., & Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 2, New York, The Macmillan Company, 1955, p. 187.

14863

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan



The Journal of the TENNESSEE MEDICAL ASSOCIATION

Published Monthly

By Tennessee Medical Association

OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE

Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 7

JULY, 1963

Per Year, $5.00
Single Copy, 50 Cents

Published Monthly

Contents

Serologic Tests for Syphilis and Their Interpretations, BRUCE B. BELLOMY, M.D., Knoxville, Tenn. 275

Management of Flail Chest, JAMES P. LESTER, M.D., Nashville, Tenn. 278

Case Report
Xanthogranulomatous Pyelonephritis, OLIVER P. CAMPBELL, M.D., and A. PAGE HARRIS, M.D., Nashville, Tenn. 281

Retinal Detachment, Associated with External Exudative Retinopathy and Secondary Glaucoma in a Two Year Old Child, ROLAND H. MYERS, M.D., Memphis, Tenn. 285

Staff Conference 287

Clinicopathologic Conference 290

President's Letter 297

Editorial 298

Deaths 300

Programs and News of Medical Societies 300

National News 301

Medical News in Tennessee 303

Personal News 305

Mail Box 306

Announcements 307

Placement Service 309

Officers of the TMA 310

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 12, Tennessee.

Manuscripts must be typewritten on one side of letter-weigbt paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliograpbic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to tbe style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, tbe requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
R. H. KAMPMEIER, M.D., Editor
This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein
Copyright, 1963, by the Tennessee Medical Journal



Notable increase in vigor, strength and sense of well-being

STROL (stanozolol-Winthrop), a heterocyclic steroid, combines nt anabolic effects with outstanding tolerance, stimulates appe- and promotes weight gain... restores a positive metabolic balance. ounteracts the catabolic effects of concomitant corticosteroid or H therapy. WINSTROL (stanozolol-Winthrop) rebuilds body tissue e it builds strength, confidence and a sense of well-being in con- ns associated with excess protein breakdown, insufficient protein ke and inadequate nitrogen and mineral retention.

Effects and Precautions: Prolonged administration can produce hirsutism, acne or voice change. In an occasional patient, edema been observed and in young women the menstrual periods have n milder and shorter. These side effects are reversible, and pa- ts receiving prolonged treatment should be examined and ques- tioned periodically so that, should side effects appear, the dosa may be reduced or administration of the drug discontinued for a tin In patients with impaired cardiac and renal function, there is the p sibility of sodium and water retention. Liver function tests may rev an increase in bromsulphalein retention, particularly in elderly tients. In such cases, therapy should be discontinued. Although it h been used in patients with cancer of the prostate, its mild androge activity is considered by some investigators to be a contraindicatio

Dosage: Usual adult dose, 1 tablet t.i.d. before or with meals; you women, 1 tablet b.i.d.; children (school age): up to 1 tablet t.i.d.; ch dren (pre-school age): ½ tablet b.i.d. Available as scored tablets 2 mg. in bottles of 100. For best results, administer with a high prote diet.

WINTHROP LABORATORIES, NEW YORK 18, N.

arked improvement in appetite / Measurable weight gain Winthrop

mudrane®

the bronchodilator
with the intermediate dose of KI

A combination of the four most widely used drugs for treatment of asthma. Each tablet contains Aminophylline 130 mg., Ephedrine HCl 16 mg., Phenobarbital 22 mg. (Warning: May be habit forming), Potassium Iodide 195 mg.—compounded for prompt absorption and balanced action, and buffered for tolerance.

Dosage in asthma, emphysema, bronchiectasis, chronic bronchitis: One tablet with a full glass of water, 3 or 4 times a day.

Precautions: The usual precautions for aminophylline-ephedrine-phenobarbital mixtures. Iodides may cause nausea, and very long use may cause goiter. Discontinue if symptoms of iodism develop.

Contraindications of Iodides: Tuberculosis, pregnancy (to protect the fetus against possible depression of thyroid activity).

mudrane® GG

The Mudrane GG formula is identical to Mudrane except that Glyceryl Guaiacolate, 100 mg. replaces the Potassium Iodide as the mucolytic-expectorant.

Glyceryl Guaiacolate has no known side effects.

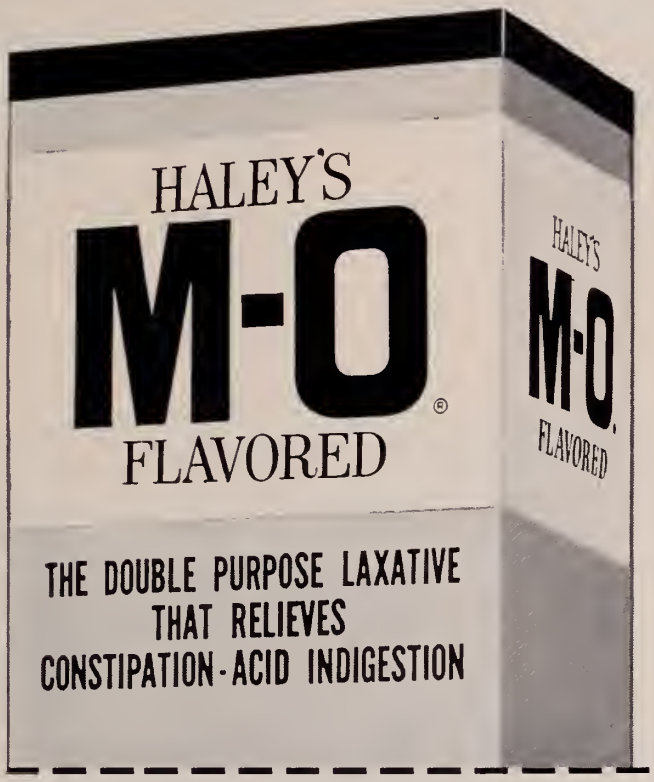
Caution: Federal law prohibits dispensing these products without prescription

COMPLETE INFORMATION AND CLINICAL SAMPLES SENT UPON REQUEST

Dispensed in bottles of 100 and 1000 tablets

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VA.
Manufacturers of ethical pharmaceuticals since 1856

NOW ALSO IN FLAVORED FORM!



BOTTLES OF
4 OZ., 8 OZ.,
1 PT., 1 QT.

Antacid–Laxative–Lubricant to help correct constipation

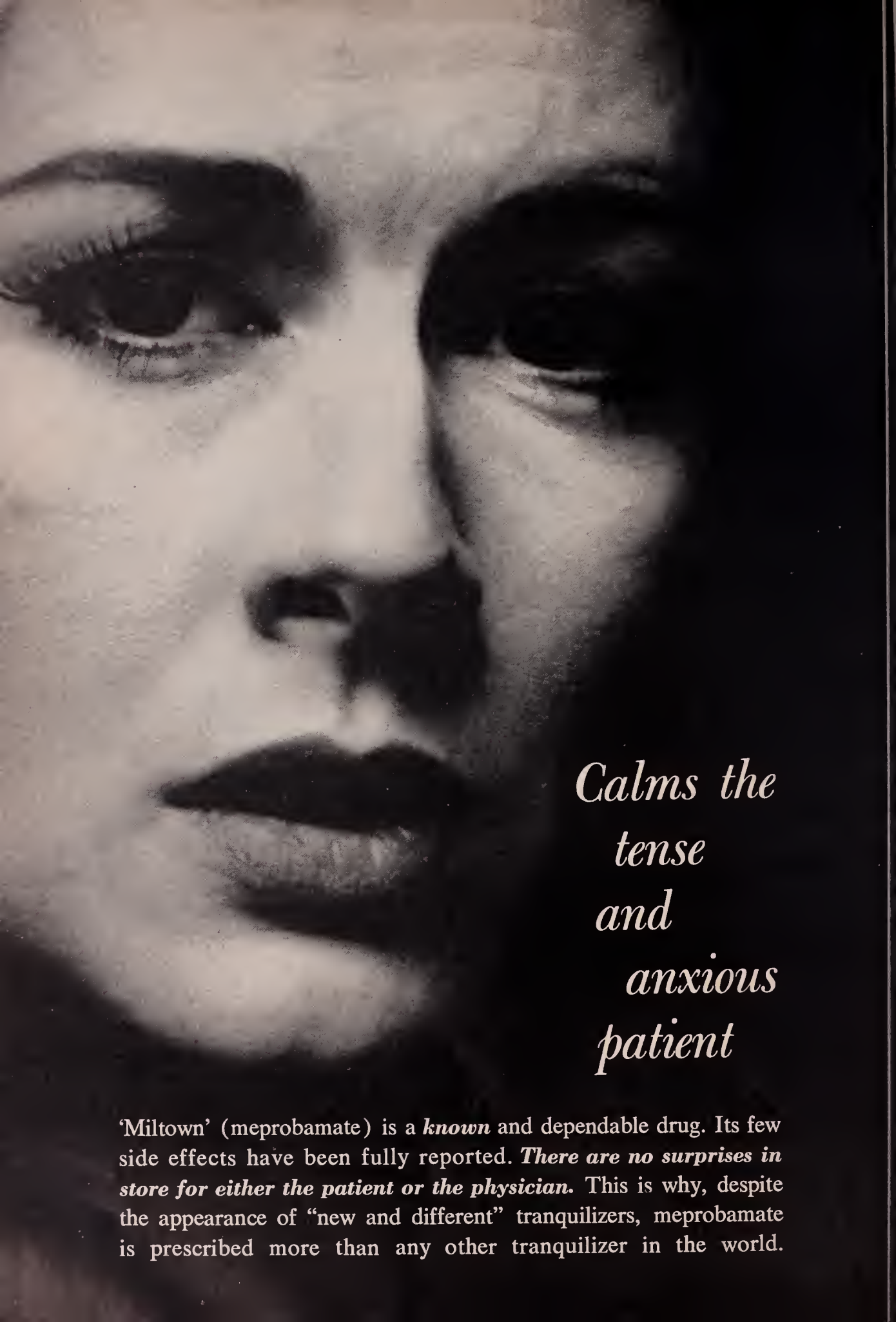
Magnesium Hydroxide plus pure mineral oil make *Haley's M-O* a smooth working antacid-laxative-lubricant that efficaciously relieves constipation and attendant gastric hyperacidity.

The oil globules in *Haley's M-O* are minutely subdivided to assure uniform distribution and thorough mixture with intestinal contents. Oil leakage is thus avoided and a comfortable evacuation is effected through the stimulation of normal intestinal rhythm and blunted defecation reflex.

May we send samples for your evaluation? Just write:

THE CHAS. H. PHILLIPS CO.

Division of Sterling Drug Inc., 1450 Broadway, New York 18, N. Y.



'Miltown' (meprobamate) is a ***known*** and dependable drug. Its few side effects have been fully reported. ***There are no surprises in store for either the patient or the physician.*** This is why, despite the appearance of "new and different" tranquilizers, meprobamate is prescribed more than any other tranquilizer in the world.

Clinically Proven

in more than 750 published clinical studies
and over eight years of clinical use

Outstanding Record of Effectiveness and Safety

1. Relieves anxiety and anxious depression in a broad spectrum of clinical conditions.
2. Doesn't leave patients "too groggy" to work or think or learn.
3. Relaxes both mind and skeletal muscle. Relieves physical tension as well as emotional stress.

Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Massive overdosage may produce coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.
Usual dosage: 1 or 2 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50.

the original meprobamate

Miltown®

WALLACE LABORATORIES / *Cranbury, N. J.*

CH-9239

CORONARY VASODILATOR

. . . IN TIMED, SUSTAINED RELEASE FORM FOR PROTECTION DURING THE CRITICAL HOURS . . . .

3 COMBINATIONS FOR DESIRED EFFECT!

ANTORA-H

Phenobarbital (Warning: May be habit forming).	3/4 gr.
Hyoscyamine Sulfate	0.3858 mg.
Atropine Sulfate	0.0750 mg.
Hyoscine Hydrobromide	0.0222 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA-B

Secobarbituric Acid (Warning: May be habit forming).	50 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA

Pentaerythritol Tetranitrate	30 mg.

The ANTORA family offers wide latitude in treating the angina patient with or without anxiety syndromes or with spastic and hypertonis symptoms. The versatility of PETN justifies its use in several combinations to benefit cardiovascular patients. No incompatibility with nitroglycerine is evident.

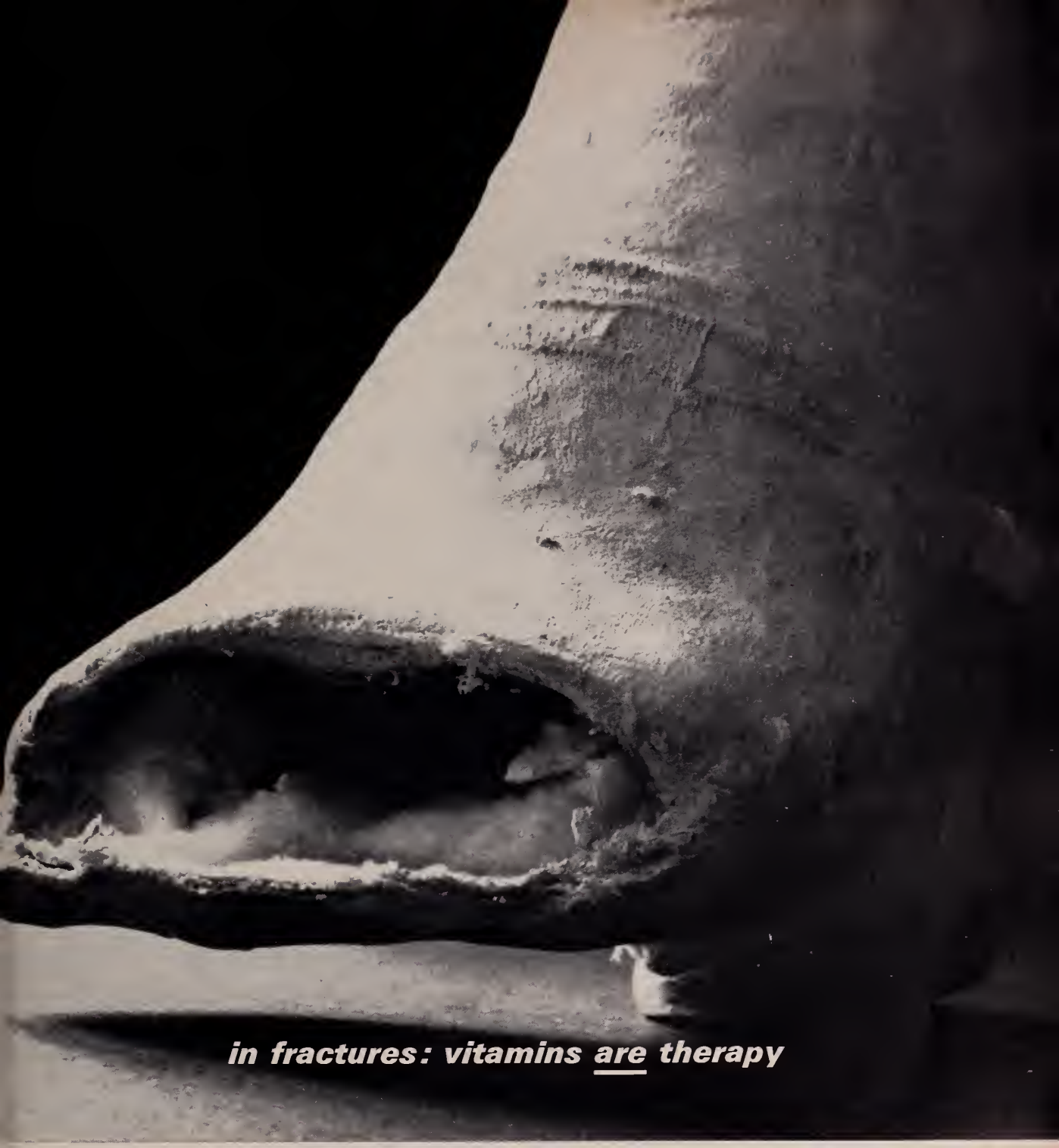
AVAILABLE: Bottles of 60 and 250 capsules.

BRIEF SUMMARY:

Side Effects: Transient headaches and nausea occasionally, not usually severe enough to discontinue medication. In a few sensitive patients, depression, arthralgias, xerostomia and myalgia may be observed. Contraindications: glaucoma, intraocular pressure, barbiturate hypersensitivity.

SAMPLES AND LITERATURE ON REQUEST

Maynard, INC. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA



Few factors are more fundamental to tissue and bone healing than nutrition. Therapeutic allowances of B and C vitamins are important for rapid replenishment of vitamin reserves which may be depleted by the stress of fractures. Metabolic support with STRESSCAPS is a useful adjunct to an uneventful recovery.

FOR PROFESSIONAL

RECOMMENDATION ONLY

Each capsule contains: Vitamin B_1 (Thiamine Mononitrate)...10 mg. / Vitamin B_2 (Riboflavin)...10 mg. / Niacinamide...100 mg. / Vitamin C (Ascorbic Acid)...300 mg. / Vitamin B_6 (Pyridoxine HCl)...2 mg. / Vitamin B_{12} Crystalline...4 mcgm. / Calcium Pantothenate...20 mg. Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

6317-3

STRESSCAPS®

Stress Formula Vitamins Lederle

For the Patient Over 50 with Digestive Distress

KANUMODIC®

Each tablet contains methscopolamine nitrate, 2 mg.; and pentobarbital (Warning: May be habit-forming), 8 mg.; plus KANULASE® (cellulase standardized to 9 mg.; combined with pepsin, N.F., 150 mg.; glutamic acid hydrochloride, 200 mg.; pancreatin, N.F., 500 mg.; ox bile extract, 100 mg.).

TESTED—PROVED

Table I—Symptomatic Relief in 25 Patients
(totalling 100 symptoms)

	COMPLETE RELIEF	PARTIAL RELIEF	NO RELIEF	TOTAL SYMPTOMS
KANUMODIC	59	17	24	100
PLACEBO	1	33	61	95

In a second study, Kanumodic produced "highly gratifying symptomatic relief" in 46 of the 60 patients participating.

Tested in patients over 50*. . . The effectiveness of Kanumodic was matched against placebo response in a study involving twenty-five "over 50 patients" suffering from functional bowel distress. All patients complained of one or more symptoms. A follow-up study of 60 additional cases (average age, 55.3 years) was also conducted.

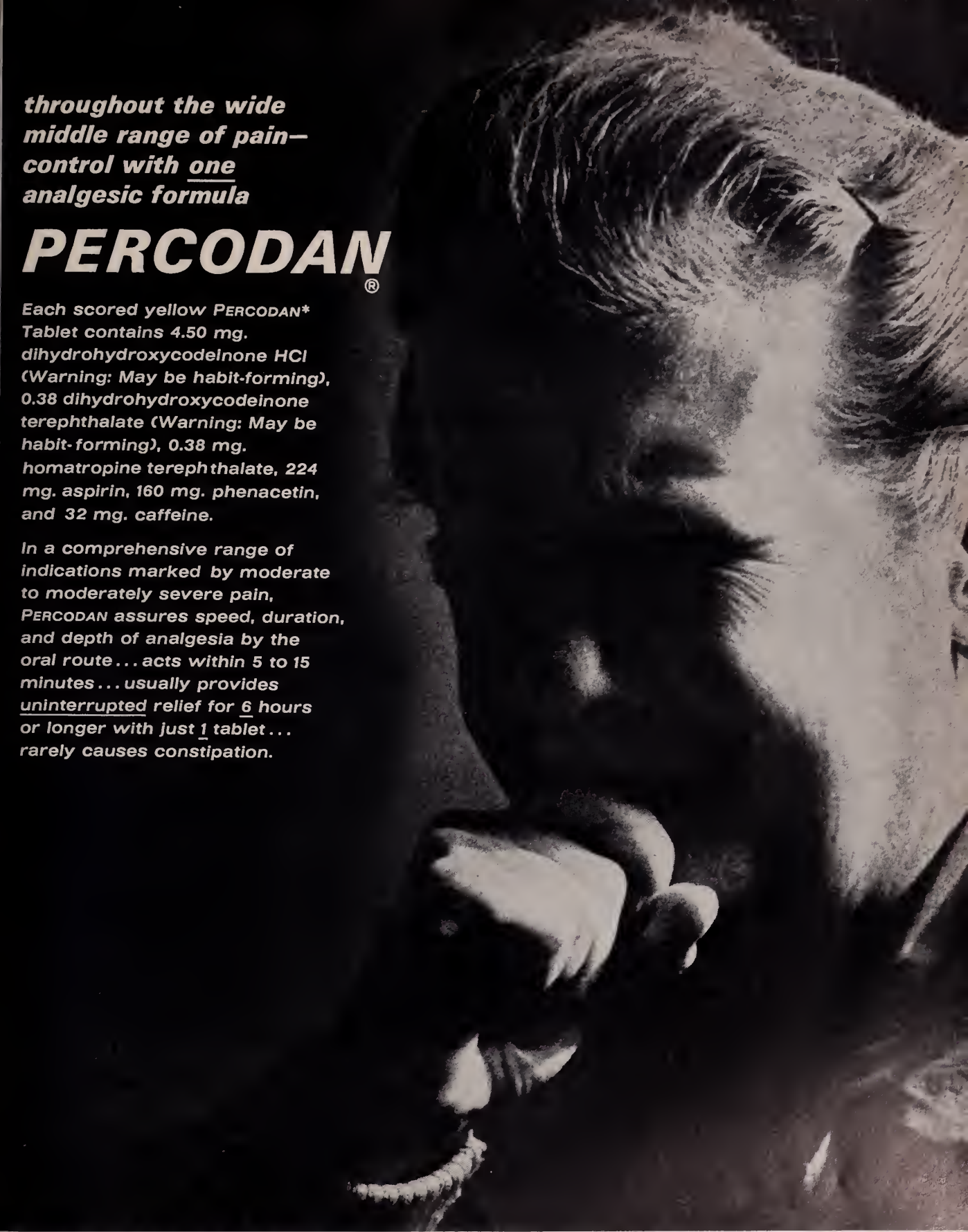
Proved in patients over 50* . . . The response noted in the pilot study is charted above.

*McHardy, G., and Balart, L.: Curr. Ther. Res. *4*:153, 1962.

Dosage: 1 or 2 tablets, swallowed whole with each meal.

Cautions: Federal law prohibits dispensing without prescription. Side effects such as dryness of mouth, blurring of vision, and urinary retention may occur occasionally with large doses. This product is contraindicated in the presence of glaucoma or prostatic hypertrophy. Glutamic acid hydrochloride is usually not given to patients with peptic ulcer.

DORSEY LABORATORIES • Lincoln, Nebraska



throughout the wide middle range of pain— control with one analgesic formula

PERCODAN®

Each scored yellow PERCODAN* *Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl (Warning: May be habit-forming), 0.38 dihydrohydroxycodeinone terephthalate (Warning: May be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. aspirin, 160 mg. phenacetin, and 32 mg. caffeine.*

In a comprehensive range of indications marked by moderate to moderately severe pain, PERCODAN *assures speed, duration, and depth of analgesia by the oral route... acts within 5 to 15 minutes... usually provides uninterrupted relief for 6 hours or longer with just 1 tablet... rarely causes constipation.*

Average Adult Dose—1 tablet every 6 hours. **Side Effects and Contraindications**—Although generally well tolerated, PERCODAN may cause nausea, emesis, or constipation in some patients. PERCODAN should be used with caution in patients with known idiosyncrasies to aspirin or phenacetin, and in those with blood dyscrasias. **Also available:** PERCODAN®-DEMI, containing the complete PERCODAN formula but with only half the amount of salts of dihydrohydroxycodeinone and homatropine. Both products are on oral Rx in all states where laws permit. Narcotic order required. **Literature on request.**

ENDO LABORATORIES Richmond Hill 18, New York

Endo®

*U. S. Pats. 2,628,185 and 2,907,768



Get your low-back patient back to work in days instead of weeks

You can expect rapid results from 'Soma' (carisoprodol)—because this unique drug breaks up both the spasm and pain of low-back syndrome at the same time.

Your patients will usually begin to feel better within a few hours. And as Kestler demonstrated in a controlled study of 212 consecutive patients with low-back problems: the average time for full recovery was only 11.5 days with 'Soma' (carisoprodol), 41 days without it. (J.A.M.A., April, 1960.)

Carisoprodol seldom produces side effects. Occasional drowsiness may occur, usually at higher than recommended dosage. Individual reactions may occur rarely.

USUAL DOSAGE: ONE 350 MG. TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

Soma®
carisoprodol

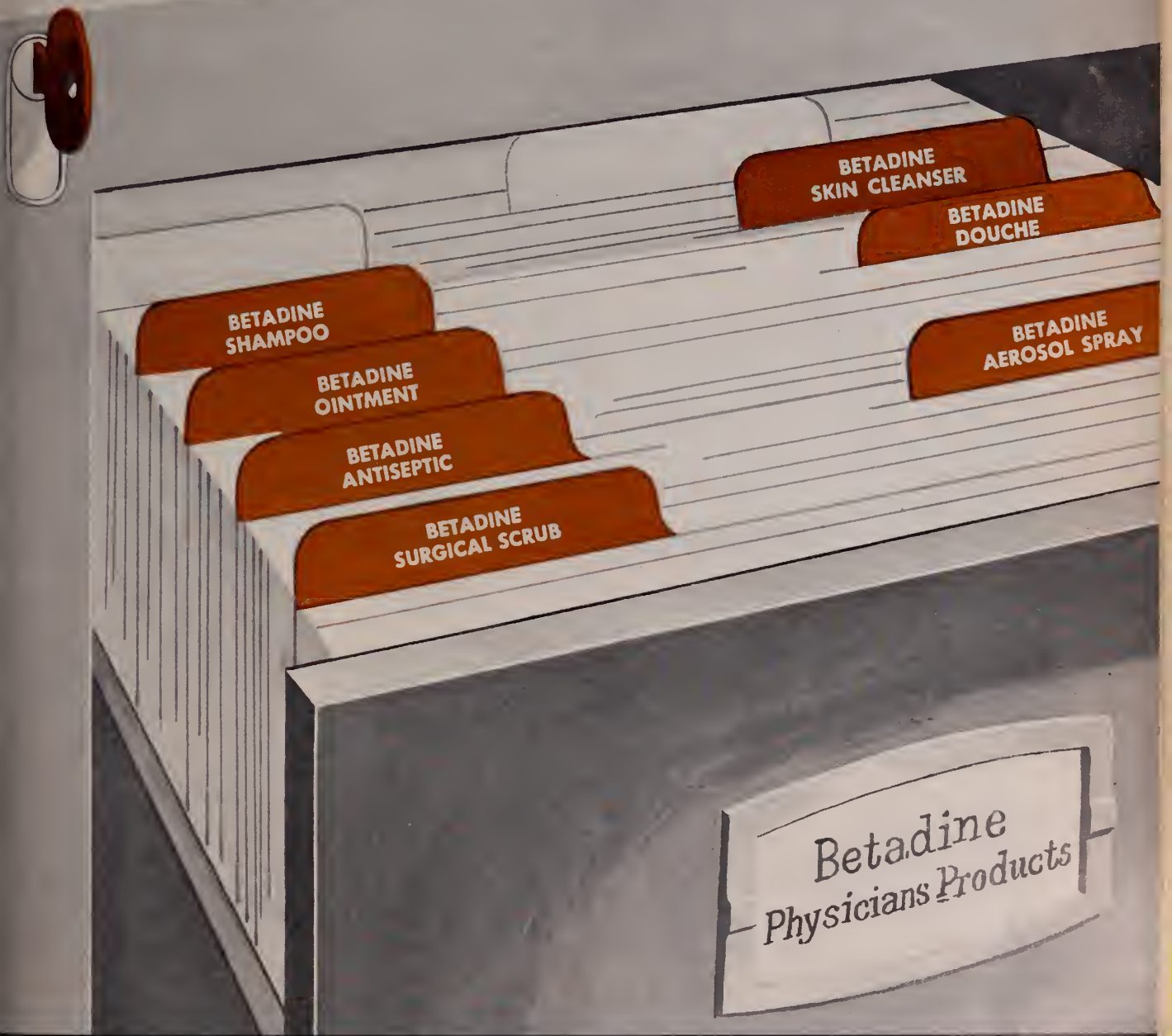
Wallace Laboratories
Cranbury, New Jersey

Betadine®
ovidone-Iodine
Products
nlock a wide
ange of usefulness

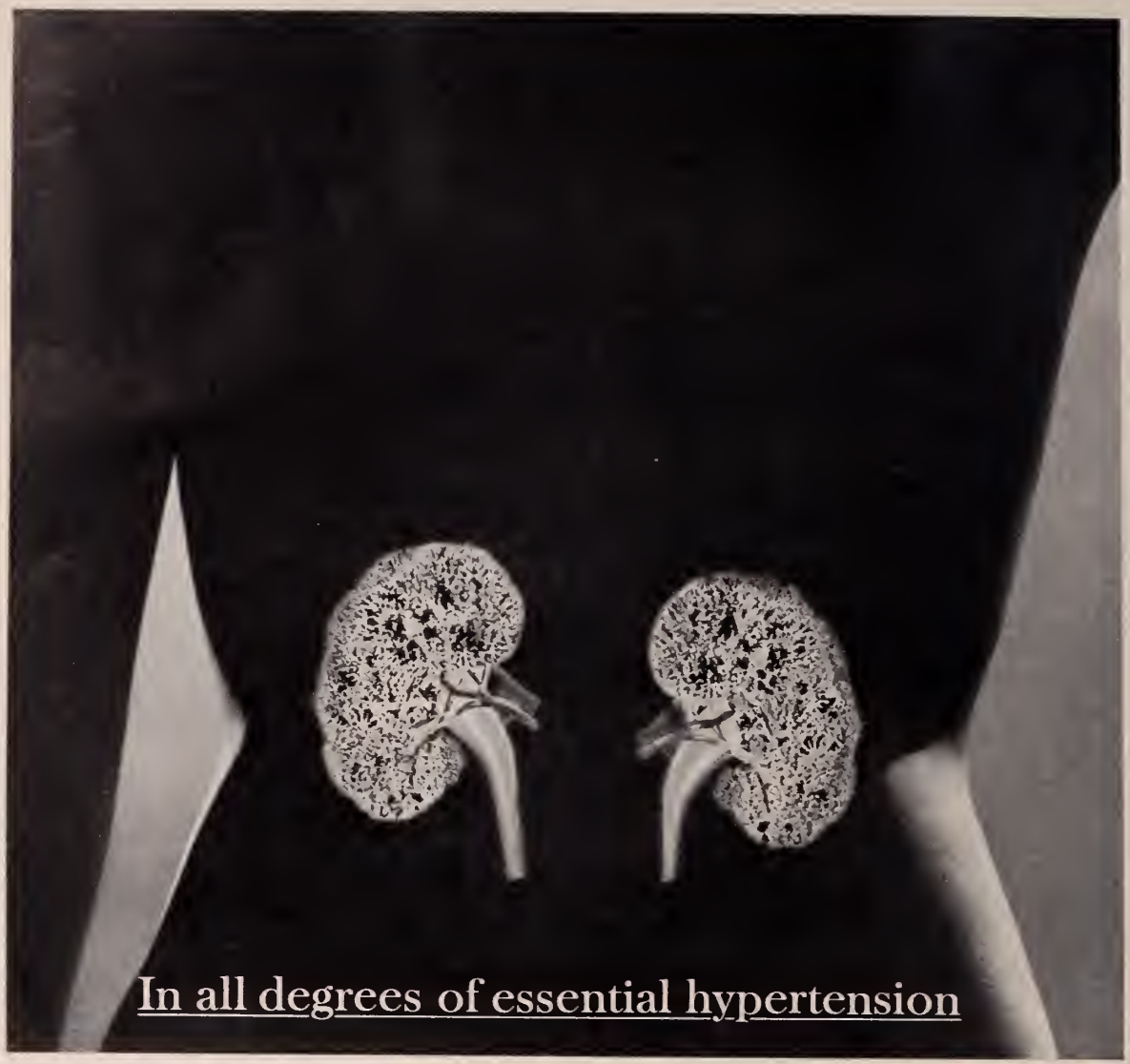
Betadine Products, in all seven dosage form contain povidone-iodine, a complex of polyviny pyrrolidone and iodine, providing all the germ cidal properties of elemental iodine . . . yet Bet dine (povidone-iodine) is nonirritating, nonsens tizing, and nontoxic to skin or mucosa.

Betadine Products are effective in preventing an treating a variety of infections frequently er countered in the practice of otolaryngology, orth pedics and orthopedic surgery, obstetrics an gynecology, oral surgery, pediatrics, surgery an dermatology.

The clinical results reported under various cor ditions of use make Betadine (povidone-iodine preparations valuable adjuncts both in the ho pital and in private practice. Literature availabl upon request.



PHYSICIANS PRODUCTS CO., INC.
PETERSBURG, VIRGINIA



Help protect the kidneys and other threatened organs

When treatment of hypertension is effective the danger of damage to the renal system is reduced.[1-2] "Hypertensive patients suffer from vascular deterioration roughly proportional to the severity of the hypertension... Reduction of blood pressure to normotensive levels reduces or arrests the progress of vascular damage with a resultant decrease in morbidity and mortality."[1] *Because Rautrax-N lowers blood pressure so effectively, it will help provide this important protection not only for the kidneys but also for the heart and brain of your hypertensive patients.* Rautrax-N is effective in mild,[3] moderate,[3,4] or severe hypertension.[4,5]

Dosage: Initially, 1 to 4 tablets daily preferably at mealtime. For maintenance, 1 or 2 tablets daily.

Side effects and precautions: Rauwolfia preparations may cause reversible extrapyramidal symptoms and emotional depression. Caution indicated in use with depression, suicidal tendencies, peptic ulcer. Minor side effects: diarrhea, weight gain, nausea, drowsiness. Bendroflumethiazide may cause reversible hyperuricemia and/or gout, unmask latent diabetes, increase glycosuria in diabetics. Caution indicated in use for patients on digitalis, with severely damaged kidneys, renal insufficiency, increasing azotemia, cirrhosis. Contraindicated in complete renal shutdown. Minor side effects: leg or abdominal cramps, pruritis, paresthesias, mild rashes.

Supply: Rautrax-N—capsule-shaped tablets providing 50 mg. Raudixin® [Rauwolfia serpentina whole root], 4 mg. Naturetin® [bendroflumethiazide], and 400 mg. potassium chloride. *Rautrax-N Modified*—50 mg. Raudixin [Rauwolfia serpentina whole root], 2 mg. Naturetin [bendroflumethiazide], and 400 mg. potassium chloride, in capsule-shaped tablets. For full information, see your Squibb Product Reference or Product Brief.

References: (1) Moyer, J. H., and Heider, C.: Am. J. Cardiol. *9*:920 (June) 1962. (2) Brest, A. N., and Moyer, J. H.: Pennsylvania M. J. *63*:545 (Apr.) 1960. (3) Berry, R. L., and Bray, H. P.: J. Am. Geriatrics Soc. *10*:516 (June) 1962. (4) Hutchison, J. C.: Current Therap. Res. *4*:610 (Dec.) 1962. (5) Feldman, L. H.: North Carolina M. J.: *23*:248 (June) 1962.

SQUIBB
Squibb Quality
—the Priceless Ingredient
SQUIBB DIVISION Olin

RAUTRAX®-N RAUWOLFIA SERPENTINA WHOLE ROOT (50 MG.), BENDROFLUMETHIAZIDE (4 MG.) WITH POTASSIUM CHLORIDE (400 MG.), SQUIBB

TENNESSEE VALLEY MEDICAL ASSEMBLY

(Sponsored by the Chattanooga and Hamilton County Medical Society)

READ HOUSE, CHATTANOOGA, TENNESSEE

Monday, September 30, and Tuesday, October 1, 1963

11TH ANNUAL ASSEMBLY

MONDAY, SEPTEMBER 30, 1963

A.M.

7:30 REGISTRATION BEGINS

9:00 NEAL OWENS, M.D., Plastic Surgeon, New Orleans, La., *"Plastic Surgery of Interest to the General Practitioner"*

9:30 CARL V. MOORE, M.D., Busch Prof. of Medicine and Head of Dept., Washington University, St. Louis, Mo., *"Iron Deficiency Anemias"*

10:00-10:30 A.M. — INTERMISSION

10:30 J. HARTWELL HARRISON, M.D., Clin. Prof., Genito-Urinary Surgery, Harvard Medical School, Boston, Mass., *"The Management of Cancer of the Prostate"*

11:00 MARION B. SULZBERGER, M.D., Tech. Dir. Research, Office of Surgeon General, Washington, D.C., *"Opportunities and Obligations of A Military Medical Research Program"*

11:30 B. MARDEN BLACK, M.D., Prof. of Surgery, Mayo Foundation, Rochester, Minn., *"Hyperparathryoidism"*

NOON

P.M.

2:00 JOSEPH STOKES, JR., M.D., Prof. Pediatrics and Physician-in-Chief, Children's Hospital, Philadelphia, Pa., *"Recent Work on Measles Immunization"*

2:30 ISADORE DYER, M.D., Prof. Obstetrics, Tulane University, New Orleans, La., *"Severe Trauma In Pregnancy and Delivery"*

3:00-3:30 P.M. — INTERMISSION

3:30 J. VERNON LUCK, M.D., Prof. Clin. Orthopaedic Surgery, University of Southern California, *"Hip Joint Problems From Birth to Old Age"*

4:00 E. GREY DIMOND, M.D., Dir., Institute of Cardiopulmonary Diseases, Scripps Clinic and Research Foundation, La Jolla, Calif., *"Can the Presence of Angina Pectoris Be Proved"*

4:30 *Questions and Answer Period*

REGISTRATION FEE $15.00

BANQUET TICKET $7.50

TUESDAY, OCTOBER 1, 1963

A.M.

9:00 KENNETH W. WARREN, M.D., Surgical Staff, Lahey Clinic, Boston, Mass., *"Surgical Aspects of Obstruction of the Common Bile Duct"*

9:30 JOHN H. MULHOLLAND, M.D., Prof. Surgery, New York University College of Medicine, New York, N. Y., *"Studies in Biliary-Pancreatic Disease"*

10:00-10:30 A.M. — INTERMISSION

10:30 RALPH A. REIS, M.D., Prof. Obstetrics and Gynecology, Northwestern University, Chicago, Ill., *"Endometriosis"*

11:00 HARRY SHWACHMAN, M.D., Assoc. Clin. Prof., Pediatrics, Harvard Medical School, Boston, Mass., *"Cystic Fibrosis: Clinical Variants and Methods of Diagnosis"*

12:00 EDGAR A. HINES, JR., M.D., Emeritus Prof. Med., University of Minnesota, and Consultant, Internal Medicine, V. A. Hospital, Oteen, N. C., *"The Evaluation of the Patient Suspected of Having Peripheral Vascular Disease"*

NOON

P.M.

2:00 LEON SCHIFF, M.D., Prof. of Medicine, University of Cincinnati College of Medicine, Cincinnati, Ohio, *"Newer Developments in the Study of Jaundice"*

2:30 HERBERT D. ADAMS, M.D., Surgical Staff, Lahey Clinic, Boston, Mass., *"Intrathoracic Goiter: Diagnosis and Treatment"*

3:00-3:30 — INTERMISSION

3:30 HARRY E. BACON, M.D., Prof and Head of Dept., Proctologic Surgery, Temple University, Philadelphia, Pa., *"The Diagnosis and Surgical Treatment of Diverticulitis of the Colon"*

4:00 Symposium on *"Gastro-Intestinal Hemorrhage"* moderated by Dr. John H. Mulholland, with Dr. Kenneth W. Warren, and Dr. Harry E. Bacon as panelists.

Banquet on Monday night, September 30, 1963, in the ballroom of the Read House at 7:30 p.m. Banquet Speaker—Isadore Dyer, M.D., New Orleans, La. (Doctors and wives are invited to this banquet.)
Subject—*"Conceiving Can Be Fun"*



For comprehensive control of the whole pain complex... helps the whole patient

Like a triad, the action of Trancogesic is direct and simple as 1,2,3. Its tranquilaxant component — chlormezanone — 1. reduces emotional reaction to pain . . . 2. decreases skeletal muscle spasm . . . and 3. its aspirin component dims the patient's perception of pain. Thus, Trancogesic controls the *whole* pain complex, helps the *whole* patient — *with unsurpassed tolerance.*

Each tablet of Trancogesic contains 100 mg. of chlormezanone and 300 mg. (5 grains) of aspirin. The usual adult dosage is 2 tablets of Trancogesic three or four times daily; the dosage suggested for children from 5 to 12 years is 1 tablet three or four times daily. Reactions to Trancogesic have been minor — gastric distress, and an occasional weakness, sedation or dizziness. Ordinarily, these may be reversed by a reduction in dosage or temporary withdrawal of the drug. Trancogesic is contraindicated in persons known or suspected to have an idiosyncrasy to acetylsalicylic acid. WINTHROP LABORATORIES, NEW YORK 18, N. Y.

TRANCOGESIC* Winthrop

CHLORMEZANONE with ASPIRIN

*TRADEMARK 100 MG. 300 MG. 4778M



In Sprains, Strains and Muscle Spasm, 'Soma' Compound

numbs the pain...not the patient

A potent analgesic and
a superior muscle relaxant

1. A sprain or fracture is not a big clinical problem—but it does hurt. And if there is housework to do and kids to mind, the patient needs something to numb the pain.

2. A.P.C. compounds have limited usefulness; and the patient can buy them without your prescription. Unfortunately, most of them are too mild to be effective for sprains—and more potent products too often make the patient feel 'dopey'.

3. 'Soma' Compound is ideal in these cases. Since it contains both 'Soma' (carisoprodol) and acetophenetidin it is both a potent analgesic and a superior muscle relaxant; it also contains caffeine to offset any drowsiness *("numbs the pain...not the patient")*.

4. Why not try 'Soma' Compound? Dosage is 1 or 2 tablets q.i.d. For more severe pain, try 'Soma' Compound + Codeine. Dosage: 1 or 2 tablets q.i.d.

5. Hypersensitivity to carisoprodol may occur rarely. Codeine may produce addiction, nausea, vomiting, constipation or miosis.

Soma® Compound
carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg.

Soma® Compound + Codeine
carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg., codeine phosphate 16 mg. (Warning—may be habit forming.)

®WALLACE LABORATORIES / *Cranbury, N.J.*

CSO-9193



for inflamed, infected, itching skin lesions

anti-inflammatory / bactericidal / antipruritic

'CORTISPORIN'® brand OINTMENT

POLYMYXIN B-BACITRACIN-NEOMYCIN WITH HYDROCORTISONE 1%

Each gram contains:
'Aerosporin'® brand Polymyxin B* Sulfate 5,000 Units; Zinc Bacitracin 400 Units; Neomycin Sulfate 5 mg.; Hydrocortisone 10 mg. (1%).

- relieves pain and itching
- reduces inflammation and edema
- provides bactericidal action against most gram-positive and gram-negative organisms, including *Pseudomonas aeruginosa*
- rarely sensitizes

General Indications: Wherever inflammation or infection occurs and is accessible for topical therapy, as in burns, wounds, skin grafts; and plastic proctologic, gynecologic, or general surgical procedures.

Dermatologic Indications: Atopic, contact, stasis, infectious eczematoid, and lichenoid dermatitis; neurodermatitis, eczema, pyoderma; anogenital pruritus; primary dermatoses with or without secondary infection; external otitis.

Caution: As with other antibiotic products, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

Contraindications: Local application is contraindicated in tuberculous conditions of the skin, herpes simplex, vaccinia and varicella.

Available: In tubes of ½ oz. with applicator tip and ⅛ oz. with ophthalmic tip. Although the ⅛ oz. tube is intended for ophthalmic use, it may be used topically.

Complete literature available on request from Professional Services Dept. PML.

*U.S. PAT. NOS. 2,565,057 AND 2,695,261

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

PAPAIN IS THE KEY

to complete, thorough vaginal cleansing

Meta Cine®

mucolytic, acidifying, physiologic vaginal douche

The papain content of Meta Cine is the key reason why it effects such complete cleansing of the vaginal vault. Papain is a *natural* digestant, and is capable of rendering soluble from 200-300 times its weight of coagulated egg albumin. In the vagina, papain serves to dissolve mucus plugs and coagulum.

Meta Cine also contains lactose—to promote growth of desirable Doderlein bacilli—and methyl salicylate, eucalyptol, menthol and chlorothymol, to stimulate both circulation and normal protective vaginal secretions. Meta Cine's pleasant, deodorizing, *non-medicinal* fragrance will meet your patients' esthetic demands.

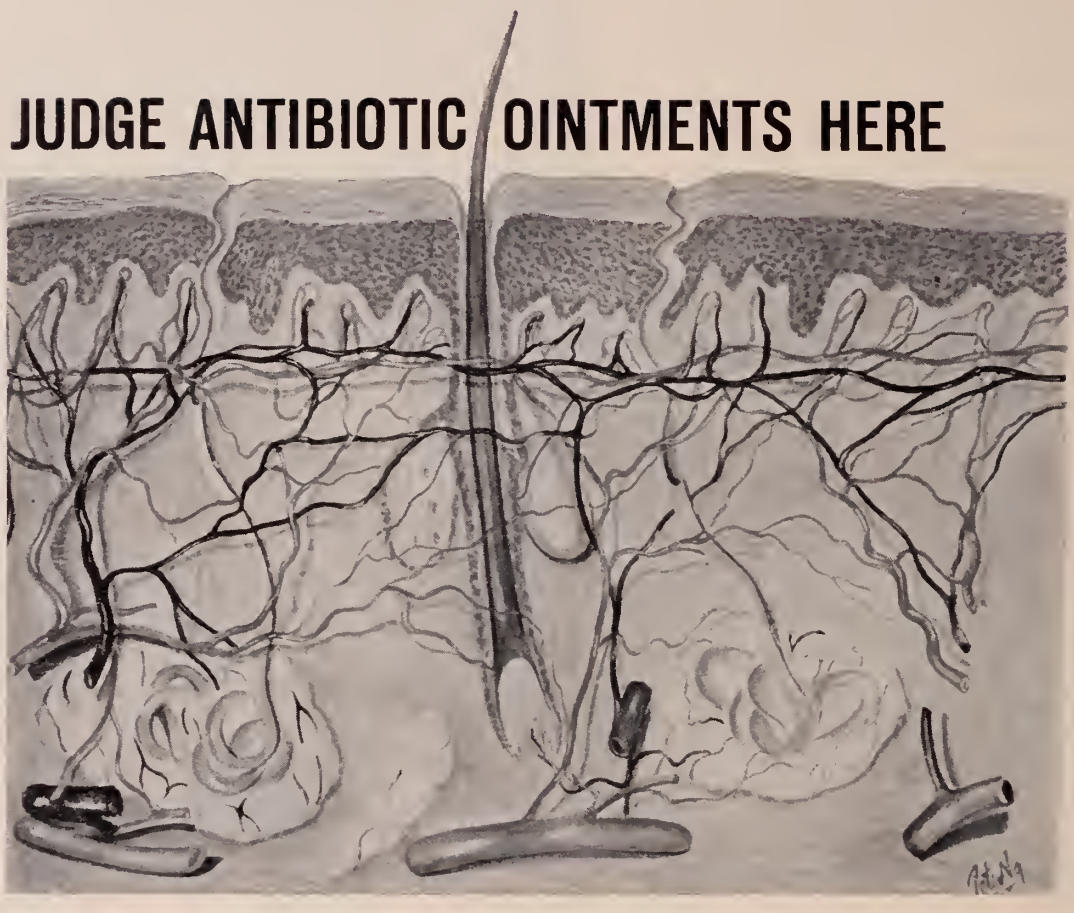
Supplied in 4 oz. and 8 oz. containers, and in boxes of 30 individual-dose packets. Dosage: 2 teaspoonfuls, or contents of 1 packet, in 2 quarts of warm water.



BRAYTEN

BRAYTEN PHARMACEUTICAL COMPANY *Chattanooga 9, Tennessee*

JUDGE ANTIBIOTIC OINTMENTS HERE



Results on skin are final proof of any topical antibiotic's effectiveness

No in vitro test can duplicate a clinical situation on living skin. 'Neosporin' (polymyxin B—bacitracin—neomycin) Antibiotic Ointment has consistently proven its effectiveness in thousands of cases of bacterial skin infection. The spectra of the three antibiotics overlap in such a way as to provide bactericidal action against most pathogenic bacteria likely to be found topically. Diffusion of the antibiotics from the special petrolatum base is rapid since they are insoluble in the petrolatum, but readily soluble in tissue fluids. The Ointment is bland and rarely sensitizes.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of non-susceptible organisms and/or fungi. Appropriate measures should be taken if this occurs.

Supplied: Tubes of 1 oz., ½ oz. with applicator tip, and ⅛ oz. with ophthalmic tip.

Complete literature available on request from Professional Services Dept. PML.

'NEOSPORIN'®

brand

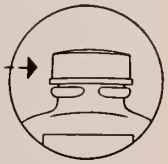
POLYMYXIN B-BACITRACIN-NEOMYCIN ANTIBIOTIC OINTMENT

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

HOW TO WIN FRIENDS...

little

New
Orange Flavored
Bayer Aspirin for Children
is sweet
all the way through,
so children
take it readily.
The GRIP-TIGHT CAP
on the bottle
helps keep them
from taking it
on their own.



Bottles of 50 tablets
(1¼ grains each)

NOW!
NEW ORANGE FLAVOR!

We will be pleased to send
professional samples on request.

THE BAYER COMPANY
Division of Sterling Drug Inc.
1450 Broadway, New York 18, N.Y.



STARTING TOMORROW MORNING 

this capsule can help one of your overweight patients do without her favorite (fattening) foods at meals—and during all the hours in between.

Dexamyl® Spansule®

Trademark brand of sustained release capsules

Each No. 2 capsule contains 15 mg. of Dexedrine® (brand of dextro amphetamine sulfate) and 1½ gr. of amobarbital, derivative of barbituric acid [Warning, may be habit forming]. Each No. 1 capsule contains 10 mg. of Dexedrine (brand of dextro amphetamine sulfate) and 1 gr. of amobarbital [Warning, may be habit forming].

The active ingredients of the 'Spansule' capsule are so prepared that a therapeutic dose is released promptly and the remaining medication, released gradually and without interruption, sustains the effect for 10 to 12 hours.

INDICATIONS: (1) For control of appetite in overweight; (2) for mood elevation in depressive states.

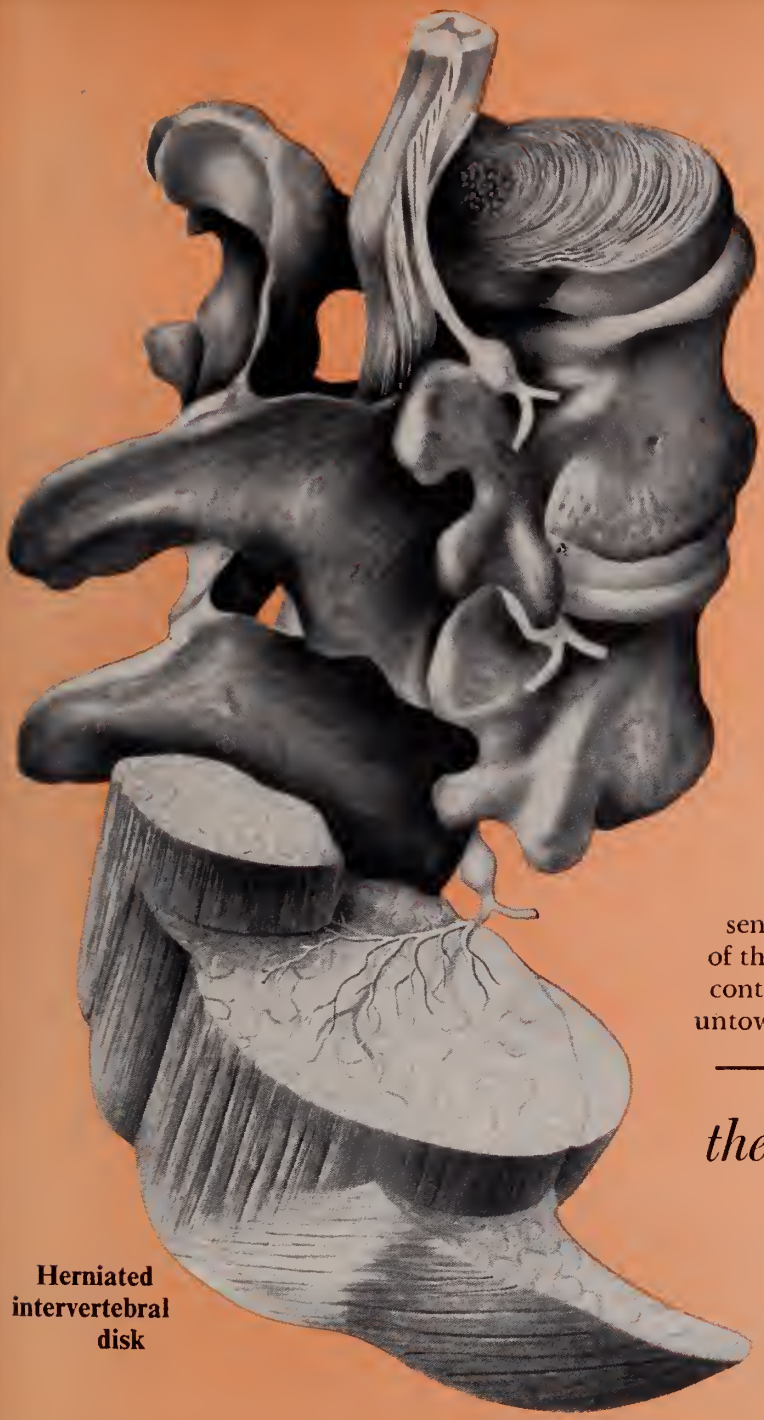
USUAL DOSAGE: One 'Dexamyl' *Spansule* capsule taken in the morning.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Use with caution in patients hypersensitive to sympathomimetics or barbiturates and in coronary or cardiovascular disease or severe hypertension. Excessive use of the amphetamines by unstable individuals may result in a psychological dependence; in these rare instances withdrawal of medication is recommended. It is generally recognized that in pregnant patients all medications should be used cautiously, especially in the first trimester.

SUPPLIED: Bottles of 50 capsules.

Smith Kline & French Laboratories SK&F *Prescribing information Jan. 1963*



Herniated intervertebral disk

When pain is prominently associated with skeletal muscle spasm, ROBAXISAL effectively combats both pain and spasm. If sedation is also indicated, prescribe ROBAXISAL-PH.

Side effects, such as lightheadedness, slight drowsiness, dizziness, and nausea may occur rarely in patients with intolerance to drugs, but they usually disappear on reduction of dosage.

Contraindicated for patients hypersensitive to aspirin or other components of the formulations. There are no specific contraindications to methocarbamol, and untoward reactions are not to be expected.

*the patient had 'pain & spasm'**



*Skeletal muscle spasm is a two-headed dragon of 'PAIN & SPASM'

ROBAXISAL®

Robins

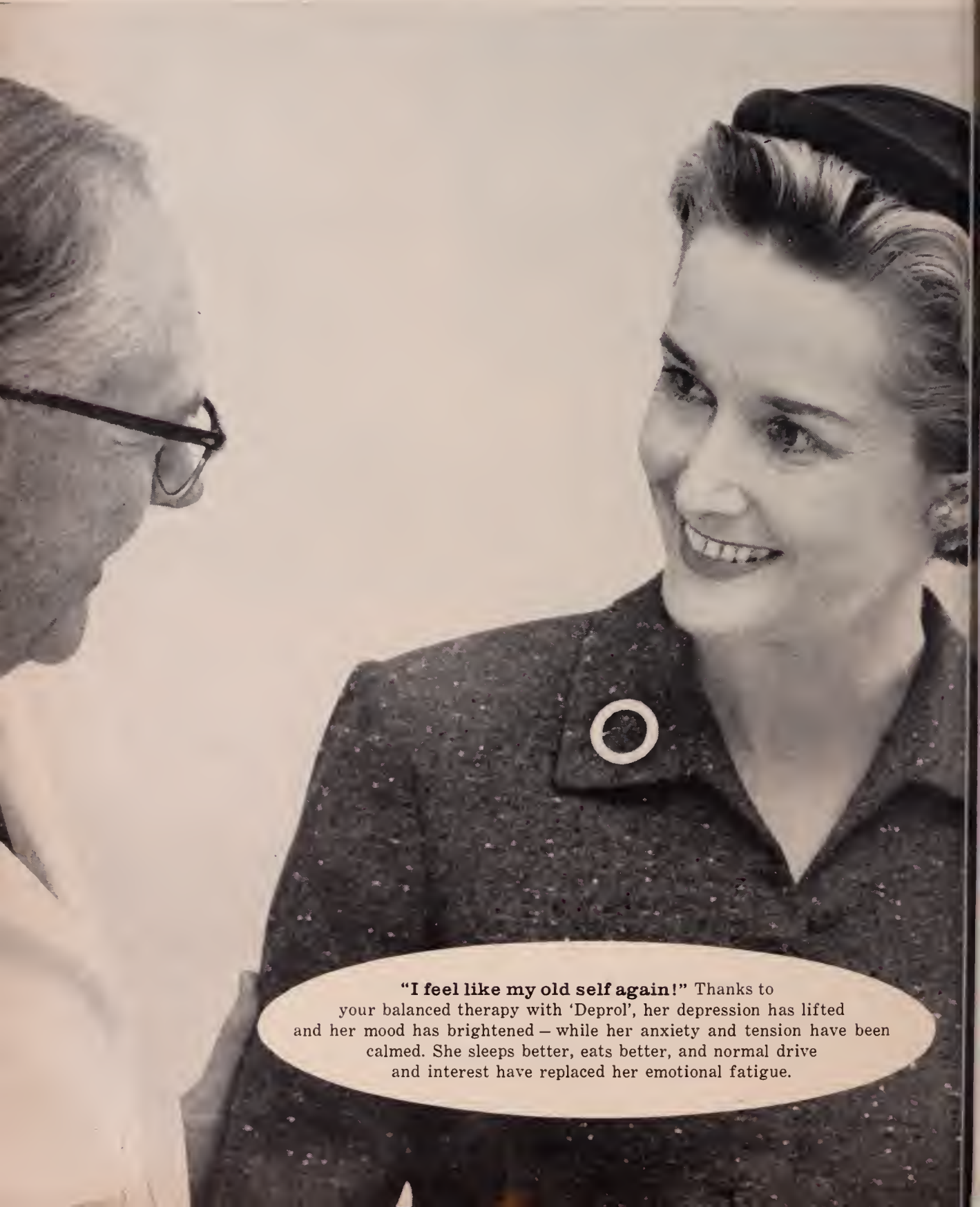
Each pink-and-white laminated ROBAXISAL tablet contains:
ROBAXIN (methocarbamol, Robins) ..... 400 mg. Aspirin (5 gr.) ..... 325 mg.
U.S. Pat. No. 2770649

ROBAXISAL®-PH

Each green-and-white laminated ROBAXISAL-PH tablet contains:
ROBAXIN (methocarbamol, Robins) ..... 400 mg. Phenacetin (1½ gr.) .... 97 mg. Aspirin (1¼ gr.) ..... 81 mg. Hyoscyamine sulfate ..... 0.016 mg. Phenobarbital (⅛ gr.) ..... 8.1 mg.
(Warning: May be habit-forming)

A. H. ROBINS CO., INC., Richmond 20, Virginia

Lifts depression.



"I feel like my old self again!" Thanks to your balanced therapy with 'Deprol', her depression has lifted and her mood has brightened – while her anxiety and tension have been calmed. She sleeps better, eats better, and normal drive and interest have replaced her emotional fatigue.

as it calms anxiety

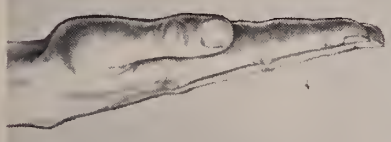
Brightens mood...relaxes tension

Energizers may stimulate the depressed patient, but they often aggravate anxiety and insomnia. Tranquilizers may help the anxious patient, but they often deepen depression and emotional fatigue.

'Deprol' avoids these "seesaw" effects; it relieves both depression and anxiety. Moreover, it does not cause liver damage, psychotic reactions or changes in sexual function.

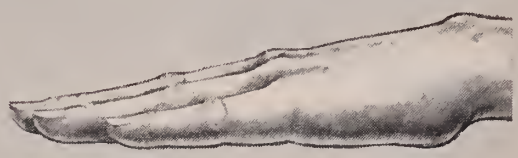
Slight drowsiness and, rarely, allergic reactions, due to meprobamate, and occasional dizziness or feeling of depersonalization in higher dosage, due to benactyzine, may occur. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.

Energizers relieve depression

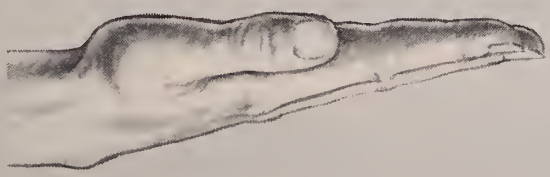




Tranquilizers reduce anxiety



'Deprol' both lifts depression and calms anxiety



Usual Dosage: 1 tablet q.i.d. May be increased gradually, as needed, to 3 tablets q.i.d.; with establishment of relief, may be reduced gradually to maintenance levels.

▲Deprol▲®

meprobamate 400 mg.
+ benactyzine 1 mg.

CD-9250

WALLACE LABORATORIES / *Cranbury, N.J.*



Protects your angina patient better than vasodilators alone

'Miltrate' contains both pentaerythritol tetranitrate, which dilates the patient's coronary arteries, and meprobamate, which relieves his anxiety about his condition. Thus 'Miltrate' protects your angina patient better than vasodilators alone.

Pentaerythritol tetranitrate may infrequently cause nausea and mild headache, usually transient. Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Like all nitrate-containing drugs, 'Miltrate' should be given with caution in glaucoma.

Dosage: 1 or 2 tablets *before meals* and at bedtime. Individualization required.
Supplied: Bottles of 50 tablets.

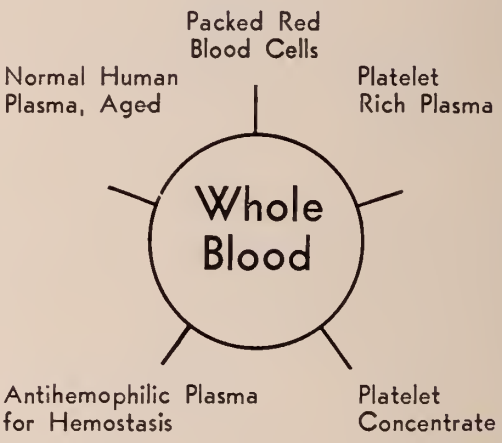
CML-9646

Miltrate®
meprobamate 200 mg.+
pentaerythritol tetranitrate 10 mg.

WALLACE LABORATORIES / *Cranbury, N. J.*

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE

Schering

in dermatoses amenable to topical steroid therapy

METI-DERM®

Prednisolone, 16.6 mg. in 50 Gm. container and 50 mg. in 150 Gm. container; in nonsensitizing vehicle—isopropyl myristate with inert propellants—trichloromonofluoromethane, dichlorodifluoromethane.

AEROSOL

COVERS

reaches every part of the lesion, any area of involvement • instant cooling, soothing effect • controls the itch, delimits the area of erythema and edema • nonfluorinated—avoids risk of steroid absorption • easy to carry and apply away from home—no residue on the skin



Clinical Considerations: In allergic dermatoses, until the specific causative agent is identified and removed from the patient's environment, the condition may be expected to recur when therapy is terminated. If infection is present, appropriate antibacterial measures should be taken. METI-DERM (prednisolone) Aerosol should not be sprayed around the eyes. Contents of can are not flammable but are under pressure. Containers should be stored in a cool place and neither punctured nor incinerated. For complete details, consult Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Union, New Jersey.

® prednisolone topical, Schering.

S-193R



We like visitors. We like to show them our modern equipment and latest research facilities, our exacting manufacturing techniques and unexcelled quality standards. Up to a point, that is. A white line provides the barrier that discourages further exploration. It means look but don't cross. It is a safeguard against inadvertent mishandling or misplacing of products—another precaution in an endless list of rules contributing immeasurably to the quality of the finished product.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

390178

Journal of the Tennessee Medical Association
OWNED AND PUBLISHED BY THE ASSOCIATION
Volume 56 JULY, 1963 No. 7

Serologic Tests for Syphilis and Their Interpretations*

BRUCE B. BELLOMY, M.D., Knoxville, Tenn.

This paper is very timely in the current re-awakening of interest in a disease posing problems of increasing seriousness. Attention must be paid to positive reactions in the routine tests employed clinically. It is unfortunate that so much publicity was given a decade ago to false positive reactions in systemic lupus and allied diseases. Experiences of others since then indicate that this was selected clinical material to a degree. It is still best to consider positive tests as due to syphilis until careful study and evaluation of the patient proves the contrary.

During the past few years there has been increasing evidence of an alarming rise in the incidence of infectious syphilis. In the period of 1958-60, for example, there was recorded a 135.8% increase in officially reported cases of primary and secondary syphilis in the 15 to 19 year age group.[1] Since an estimated 50% or more of cases of syphilis seen by private physicians go unreported, the true incidence would produce even more pessimistic figures. The purpose of this paper is to review briefly the interpretation of serologic tests for syphilis which continue to be the main diagnostic tool of the private physician in the detection of syphilitic infection.

The invasion of the human host by the *Treponema pallidum* leads to a dual serologic response. One is the formation of true antibodies to the Treponema itself. The other response is the formation of antibody —like substances called "reagin," which appear in the serum four to six weeks after the onset of infection. The former antibody can be detected by the tests based on the use of antigens, from living or killed Treponema organisms. The original prototype test is the Treponema Pallidum Immobilization test of Nelson and Mayer.[2] In the non-treponemal tests the antigen used is an extract of beef heart to which cholesterol and lecithin are added. There are two general types of non-treponemal tests in wide use. (a) Complement fixation tests, the most commonly used being the Kolmer modification of the Wassermann test, and (b) flocculation tests which offer the advantage of simplicity of performance and interpretation, the V.D.R.L. slide and tube tests, Kahn, Mazzini, Kline and others.

Non-Treponemal Flocculation Tests

It is important to understand the concept of sensitivity and specificity as related to the non-treponemal antigen tests for syphilis. In general, the tests are highly sensitive, since they are likely to be *positive* if the tested individual has contracted syphilis. On the other hand they are not entirely specific since they are sometimes also *positive* in certain individuals not having syphilitic infection, constituting the group of biologic false positive reactions. The various tests with non-treponemal antigens show somewhat varying degrees of sensitivity and specificity so it is understandable that occasionally conflicting results may occur if two or more tests are compared. The V.D.R.L. slide and tube flocculation tests are thought

*From the Department of Pathology, Fort Sanders Presbyterian Hospital, Knoxville, Tenn.

to represent near optimal specificity yet with marked sensitivity.

The qualitative V.D.R.L. test and other flocculation tests are generally reported and may be interpreted as follows:

(1) Nonreactive: This will usually exclude syphilis unless the infection is of less than 4 to 6 weeks duration. (Spontaneous seronegativity may occur many years after infection, even in the presence of late disease, as in aortic lesions and in tabes dorsalis.)

(2) Weakly reactive: This is a weak or doubtful reaction and is an indication for repeating the test in a week or two to determine if it represents very early true reactivity, long established late latency, or merely a transient insignificant reaction.

(3) Reactive: This indicates either true syphilitic infection or a biologic false positive reaction.

Quantitative flocculation tests are very helpful in establishing a standard of reactivity from which change can be measured. If the disease is active the titer will often rise in subsequent tests. If the patient has been treated the titer will usually fall, indicating satisfactory progress, and if the patient is "serofast" the titer will remain stationary more or less indefinitely. Determination of the quantitative titer, however, has its limitations because of variations in individual patients and other factors. A patient with early syphilis may have a relatively high titer and another with more advanced disease may have a low titer. In general, titers are higher in secondary syphilis than in the primary stage. In latent syphilis any titer may occur, but they are usually low or only moderately elevated, especially in late latency.

In the quantitative flocculation tests the titer is usually reported in terms of the highest dilution of serum which still gives a positive reaction. For example, if the 1:32 dilution gives a positive reaction but the 1:64 dilution is negative, the result is reported as "reactive 1:32." Some laboratories report the same finding as "reactive 32 dils."

Treponemal Antigen Tests

Since the introduction of the original Treponema Pallidum Immobilization test in 1949, a number of variations and modifications of the test have appeared. In general, they are highly specific for treponemal infection. They are, however, somewhat less sensitive in that antibody formation is slower than is required for some of the non-treponemal tests. It is possible, therefore, early in primary syphilis to encounter a reactive flocculation test with a negative treponemal antigen test.

At the present time in Tennessee, the State Health Laboratory in Nashville[3] is offering the Fluorescent Treponemal Antibody test, which utilizes as its antigen a killed pathogenic strain of *Treponema pallidum*. The test involves adding fluorescein tagged antihuman globulin and the patient's serum to the antigen. If the serum contains antibodies to the *Treponema pallidum* they will adhere to the spirochetes and carry the tagged globulin with them. Under ultraviolet light these spirochetes will fluoresce, constituting a *positive* test. If there are no treponemal antibodies, there will be no fluorescence and the test will be reported as *negative*. The primary indication for this test is in the differentiation of true syphilitic infection from patients showing biologic false positive reactions. The Tennessee State Health Laboratory requires that at least two previous non-treponemal tests be performed before they will accept a patient's serum for this test.

Biologic False Positive Reactions

A number of disease states other than syphilis may, on occasion, result in the formation of reagin—like bodies in serum producing a positive reaction to any or all of the non-treponemal tests. These may be arbitrarily divided into two groups: (1) the acute or transient biologic false positive reactions, and (2) the chronic biologic false positive reactions. The acute group, which usually has a positive reaction lasting only a few weeks or less, includes a wide variety of illnesses but has been especially associated with infectious mononucleosis, atypical pneumonia, vaccinia and lymphopathia venereum and other viral diseases, malaria, and rickettsial infections. Chronic biologic false positive reactions, on the other hand, last many months or years and frequently have no known precipitating factor. Leprosy has been associated with as high as an 85% B.F.P. rate.[4] Miller[5] and Moore and Mohr[6] have expressed the opinion that in dealing with private hospital patients, approximately 40% of positive serologic tests

for syphilis represents B.F.P. reactions. In systemic lupus erythematosis Moore and Mohr[6] reported a 20% incidence of B.F.P. reactions and in some patients this reaction may appear months or years prior to the onset of clinical disease. The occurrence of a B.F.P. reaction, then, has been suggested as an indication for careful screening for the presence of subclinical systemic lupus. Other less common causes for chronic B.F.P. include Hashimoto's struma, rheumatoid arthritis and certain other members of the so-called collagen diseases.

Spinal Fluid Tests for Syphilis

Biologic false positive reactions for syphilis in the spinal fluid occur with extreme rarity requiring, therefore, only the performance of one of the non-treponemal tests under ordinary circumstances. An adequate spinal fluid study in suspected syphilis consists of: (1) V.D.R.L. flocculation test or other non-treponemal antigen test,* (2) cell count, (3) content of total protein, and (4) colloidal gold or mastic test.

Reactive spinal fluid tests for syphilis almost always indicate past or present neurosyphilis. However, this does not necessarily mean active disease, since following the arrest of neurosyphilis by treatment it may take many years for the spinal fluid serologic reactive to return to the nonreactive state, and in fact, may never do so. On the other hand, in the occasional instances of so-called "burned out" neurosyphilis, the spinal fluid serologic tests may be negative in the presence of long standing neurosyphilis, usually tabes dorsalis.

Conclusions

The availability of a wide variety of serologic tests for syphilis may seem to complicate rather than simplify the diagnosis of the disease. However, the intelligent application of a few well understood laboratory studies coupled with a knowledge of the natural history of syphilitic infection, and a continuing high index of suspicion of syphilis as a diagnostic possibility, will provide a means of efficient, relatively rapid handling of problems concerning the serologic diagnosis of syphilis.

**Editor's Note.* Your editor does not feel as secure with the flocculation test as the complement fixation test. Increased protein in the cerebrospinal fluid from nonsyphilitic disease, as in tumor, bacterial and viral meningitis, or chronic alcoholic disease may give a falsely positive test where the less sensitive complement fixation test does not. (One cannot repeat lumbar punctures as readily as venipunctures if laboratory results differ from clinical evaluations.)

References

1. Baumgartner, L.: Syphilis, New Medical Materia. 4:11, 1962.

2. Nelson, R. A., Jr. and Mayer, M. M.: Immobilization of Treponema Pallidum in Vitro by Antibody Produced in Syphilitic Infection, J. Exper. Med. 89:369, 1949.

3. Personal Communication. Department of Public Health, State of Tennessee, Dec. 14, 1960.

4. Ross, H.: The Blood in Leprosy: Morphology, Chemistry, Immuology, Leprosy Briefs 6:21, 1955.

5. Miller, S. E.: A Textbook of Clinical Pathology, 1960.

6. Moore, J. E. and Mohr, C. F.: Biologically False Positive Tests for Syphilis: Type, Incidence and Cause, J.A.M.A. 150:467, 1952.

In one of the major health hazards of the American people—*Death on the Highway*—impending death more often than not is the problem of the doctor called to the scene or to whom the patient is brought, whether in the office or hospital. Commonly this is the general practitioner in a small town. His knowledge of what he faces and how he manages with what is at hand often means the difference between life and death.

Management of Flail Chest*

JAMES P. LESTER, M.D., Nashville, Tenn.

Although injuries to the thoracic wall without penetration of the pleura seldom present major problems, crushing injuries of the chest and/or abdomen are not uncommon and following highway accidents constitute a large part of all chest injuries. Thus, the physician may find himself faced with an almost moribund patient, yet the skin of the entire body may well be intact. Conditions present demand immediate attention or management in the order of precedence, and fractures of the extremities are immobilized at least temporarily while the chest injuries are being treated. Following the initial establishment of a satisfactory airway and the temporary management of sucking wounds, pneumothorax, hemothorax and shock, some decision must be made concerning the degree of impairment of pulmonary function and the method and extent of treatment to be employed in the management of the flail chest. Patients with only one or two fractured ribs rarely constitute a problem; however, patients with multiple or comminuted fractures of ribs and/or sternum will rapidly develop severe disturbance of pulmonary function. Because of variations in the extent of the injuries to the chest, plus the general condition of the patient with regard to other injuries sustained, no hard and fast rules may be made concerning the management of all patients.

Pain of the chest wall is relieved initially by intercostal nerve block, and improved ventilation may be accomplished immediately by placing the patient on positive pressure breathing provided no significant leak in the lung is present. A brief review of the actual disturbance in pulmonary physiology which occurs in the flail or crushed chest may be of some value. After relieving chest wall pain by intercostal block and after closing sucking wounds of the chest, if present, two principle problems remain as the result of chest instability (Fig. 1):—(1) respiratory acidosis and (2) hypoxia.

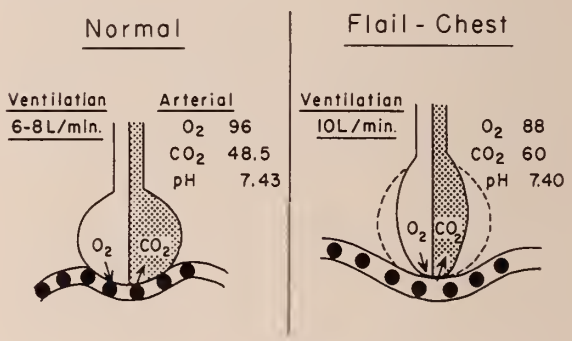


FIG. 1. Left: Normal alveolar ventilation. Right: Carbon dioxide retention, arterial hypoxemia, and respiratory acidosis due to decreased alveolar ventilation.

Continued removal of oxygen by the pulmonary capillary blood each minute without the addition of an equal amount of oxygen to the alveoli results in *arterial anoxemia*.[1] Simultaneously there is CO_2 retention and respiratory acidosis. These two serious conditions are the result of inadequate alveolar ventilation. Decreased ventilation may occur as a result of:—(1) pain, (2) paradox, (3) secretions, (4) airway obstruction, (5) distention, (6) atelectasis, and (7) pneumothorax and/or hemothorax.

After establishing a patent airway, correction of any existing pneumothorax, and relieving pain in the chest wall, the remaining problems responsible for a decrease in ventilation are *paradox* and *secretions* and, to varying degrees, *atelectasis*. The resulting hypoxia in these patients is for the most part a secondary phenomenon.

If we consider the oxygen dissociation curve of hemoglobin (Fig. 2), it is seen

*Presented at the meeting of the Tennessee Inhalation Therapists Association, Feb. 19, 1963, Nashville, Tenn.

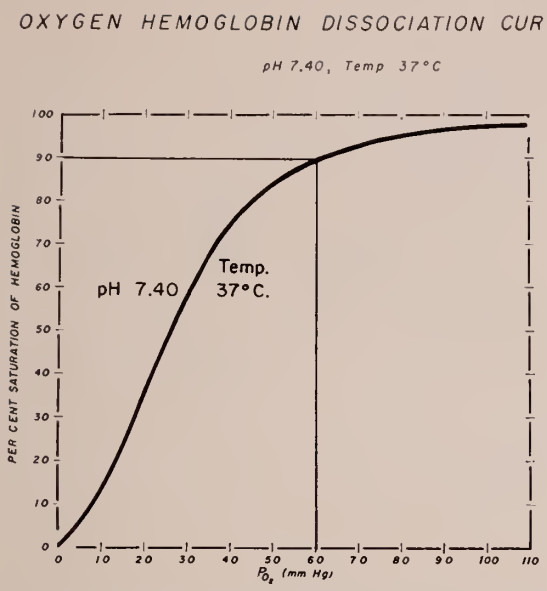


FIG. 2. Oxygen hemoglobin dissociation curve of blood at pH 7.40 and T. 37° C. (Reprinted from *The Lung*,[2] by permission of Year Book Medical Publishers, Inc.)

that the blood has an amazing ability to saturate itself with oxygen even at a very low pO_2. The blood will still be over 90% saturated even at a pO_2 of 70.[2] At the same time, the normal CO_2 output is 8/10 of the oxygen uptake and amounts to about 200 cc. per minute in the average adult. Since CO_2 tension is normally in equilibrium between pulmonary capillaries and the alveoli at 40 mm. Hg. or 5% of the alveolar gas, it is evident that normal alveolar ventilation must be maintained at 4200 cc. per minute in order to remove the excess CO_2; so, the real culprit in crush injury to the chest is the retained CO_2 which produces respiratory acidosis.[1] There is a secondary fall in the pO_2 since atmospheric pressure is constant at 760 mm. of Hg. and the pN_2 is also constant at 610 mm. of Hg. Thus, with increased pCO_2 there must be a simultaneous drop in the pO_2 which eventually reaches a critical level with the attendant features of initial restlessness progressing on to coma and death. The initial diagnosis is made clinically on the basis of the patients' injuries and symptoms. However, the only measure of respiratory acidosis is to check not only the CO_2 content of the blood but also the arterial pH at intervals to accurately evaluate the patient's progress (Fig. 3).[3] Nontheless, a good clinical response is adequate presumptive evidence of respiratory acidosis and inadequate ventilation when these studies are not available.

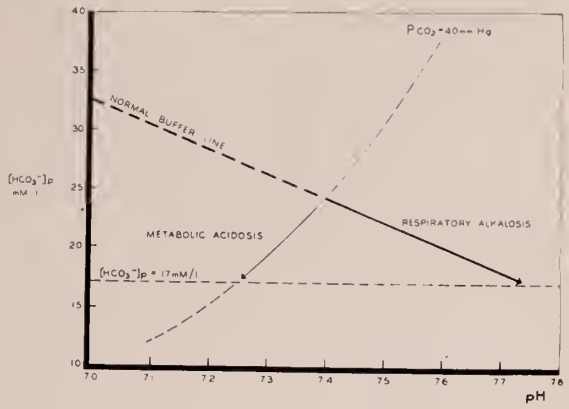


FIG. 3. pH-bicarbonate diagram illustrating the impossibility of distinguishing between respiratory alkalosis and metabolic acidosis if only the total carbon dioxide of the plasma is known. (Reprinted from The ABC of Acid-Base Chemistry,[3] by permission of The University of Chicago Press.)

Treatment

The use of nasal oxygen (Fig. 4, left)

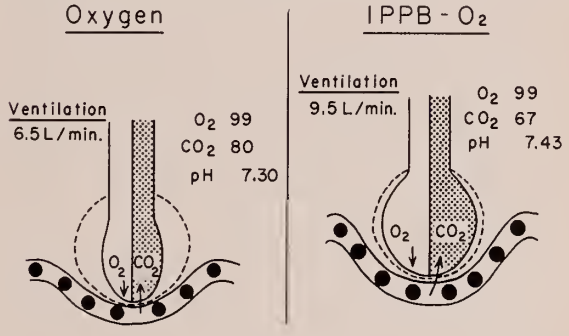


FIG. 4. *Left:* Following the administration of oxygen, blood saturation improved without improved alveolar ventilation. *Right:* Improved alveolar ventilation with positive pressure breathing.

narcotics and sedatives should be used judiciously, if at all, in these patients, since they decrease respiration and further compound the existing respiratory acidosis.[4,5] Treatment, then is directed toward:[6]

(1) Adequate airway
  (a) Mouth gag
  (b) Endotrachael tube—temporary
  (c) Tracheotomy (open glottis)
(2) Adequate ventilation (IPPB)
(3) Removal of secretions

An endotrachael tube is only a temporary measure in patients who cannot be given adequate ventilation with a face mask. However, tracheostomy should be done if an endotrachael tube has proven necessary, although tracheotomy has its own inherent

weaknesses, as:—(1) less resistence to pulmonary exchange by oral route, and (2) the cords remain open 36 to 48 hours after insertion of tracheotomy tube with spillage of saliva and fluids into trachea.

With a tracheotomy tube in place, secretions are easily removed and adequate ventilation can usually be accomplished in association with IPPB,—*Intermittant Positive Pressure Breathing* is finding an increasingly greater acceptance in the immediate and late treatment of flail chest. Since IPPB is usually capable of producing adequate ventilation (Fig. 4, right), the unstable chest is a cosmetic deformity which will rarely require surgical fixation. Most instabilities of this nature will reach adequate stabilization through healing after two weeks, during which time IPPB may be used continuously and be gradually reduced to 5 minutes hourly and subsequently to p.r.n. for 5 to 10 minutes, with or without the use of wetting agents or bronchial dilators. In some extensive injuries the patient's response to conservative measures may be inadequate and surgical intervention may become necessary, but this is frequently at a later date when the patient is better able to tolerate surgery.

From a surgical standpoint, the following principles are applicable:

(1) Fixation of the chest wall should be internal with wiring of the fractured ends if possible.

(2) Fixation with struts or braces has the advantage of allowing the patient more freedom of motion than traction devices, but is a potential source of infection via skin holes.

(3) Traction devices utilizing wires, towel clips, etc., (a) are a potential source of infection, (b) allow the patient little freedom of motion and (c) are prone to "saw" or pull through the bony table to which they are anchored.

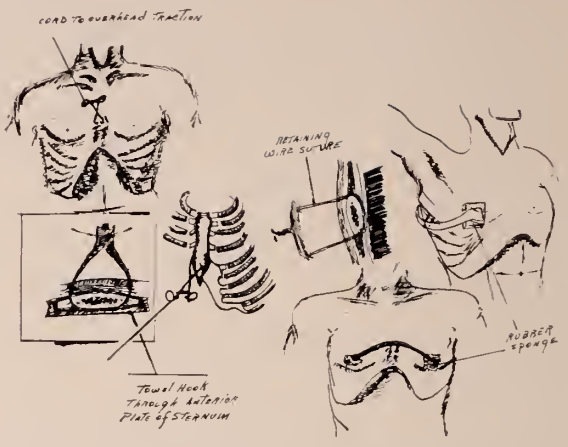


FIG. 5. Illustrates the use of stints and traction devices for stabilizing chest wall.

Summary

(1) In crushing injuries of the chest, one of the major problems is inadequate alveolar ventilation.

(2) Respiratory acidosis and arterial hypoxemia attending crushing injuries of the chest may be satisfactorily managed by the use of IPPB or IPPB in conjunction with surgical fixation of the chest wall.

References

1. Motley, H. L.: Physiologic Research in Chronic Pulmonary Disease; An Evaluation of Alveolar Aereation Oxygen and CO_2 Transfer and the Pulmonary Circulation, Dis. Chest 38:1, 1960.

2. Comroe, J. H., Forster, R. E., Dubois, A. B., Briscoe, W. A., and Carlsen, E.: The Lung, Chicago, 1962, Year Book Medical Publ. Inc.

3. Davenport, H. W.: The ABC of Acid-Base Chemistry, Chicago, 1961, University of Chicago Press.

4. Smart, R. H., Motley, H. L., and Boyle, J. F.: A Clinic on Recognition and Management of Respiratory Acidosis. An Illustrated Film Review, J.A.M.A. 168:2053, 1958.

5. Windsor, H. M.: The Crushed Chest, Thorax 16:3, 1961.

6. Strug, L. H., Glass, B., Leon, W., and Salatich, M.: Severe Crushing Injuries of the Chest, J. Thorac. Cardiov. Surg. 39:166, 1960.

CASE REPORT

Xanthogranulomatous Pyelonephritis*

Oliver P. Campbell, M.D., and
A. Page Harris, M.D., Nashville, Tenn.

Xanthogranulomatous pyelonephritis is an uncommon variety of proliferative inflammatory disease of the kidney which is associated with parenchymal destruction. In the late stages of the disease accurate diagnosis becomes more difficult because of its striking resemblance to clear cell carcinoma. These similarities occur not only in the gross appearance but in the microscopic as well. Each appears yellow on cut section, frequently shows areas of necrosis and hemorrhage, and may invade the perinephric tissues. On microscopic section each may show nests, cords, strands, or sheets of large uniform polyhedral cells with clear, foamy cytoplasm and round or oval centrally placed nuclei. In xanthogranulomatous pyelonephritis there may be areas with many plasma cells, lymphocytes, polymorphonuclear leukocytes, and multinucleated giant cells. Cholesterol clefts are sometimes present. The cellular appearance in xanthogranulomatous pyelonephritis is due to distension of the cells with lipoid drops or cholesterol esters which take a fat stain. These latter features aid in distinguishing this condition from a neoplastic process. The following report is illustrative of the confusion one might encounter in distinguishing between these two diseases.

In August 1959, a 65 year old white man (#A 3001) was admitted to the Thayer Veterans Administration Hospital with a complaint of right flank pain of 3 months duration. At the time of admission the pain was aggravated by being up and about and sometimes was relieved by lying down. It had been ushered in with 2 weeks of fever and general malaise, but these symptoms abated spontaneously. Examination revealed mild right upper quadrant and right costovertebral angle tenderness but without a demonstrable mass. Admission serum urea nitrogen was 16 mg. %, PCV. 24%, Hgb. 7.0 Gm., and WBC. count was 12,800 with a slight shift to the left. Urinalysis showed many white blood cells; urine culture grew *B. proteus*. Chest x-ray showed an obliterated right costophrenic angle. Barium enema and GI series were negative. I.V.P. revealed a staghorn calculus in a nonfunctioning right kidney.

Transfusions were used to correct the anemia, following which the patient was operated upon through a right subcostal flank incision. Exploration of the right renal fossa revealed a solid mass, thought to represent tumor, extending from the diaphragm down to the level of the iliac crest. A necrotic abscessed area was entered and the calculus and a piece of tissue for biopsy were removed. Nephrectomy was deemed technically ill-advised; therefore, the incision was closed with drainage. The patient was treated with chloramphenicol and kanamycin postoperatively, with clearing of his bladder urine, but the right flank continued to drain pus, from which *B. proteus* was cultured.

The biopsy tissue revealed the renal architecture to be replaced by invading sheets and masses of atypical large cells showing granular, sometimes vacuolated, clear cytoplasm with small pyknotic, atypical nuclei. The cells were generally aligned in loose strands and cords with occasional attempts at bizarre glandular formation. (Figs. 1 and 2.) There were interspersed infiltrations of acute and chronic inflammatory cells. "Central zones of tumor cells show a tendency to cell necrosis and breakdown with collections of chronic inflammatory cells, plasma cells, and phagocytic cells." The pathologist's impression was carcinoma, renal cell, with pyelonephritis, chronic.

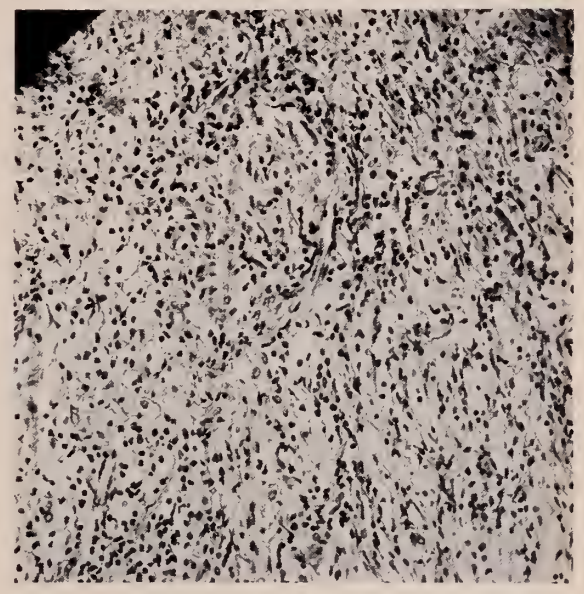


FIG. 1. Section from biopsy of renal mass showing sheets of large cells with granular to vacuolated clear cytoplasm.

With this pathologic confirmation of the clinical impression of tumor, the patient was started on x-ray therapy to the right renal area, and received a total dose of 7,500 r. in air prior to discontinuance of therapy because of the development of severe nausea. The patient's general condition improved subsequently, but the flank wound continued to drain purulent material. Therefore, 4 months later, the incision was re-opened and

*From the Division of Urology, Vanderbilt University Medical Center, Nashville, Tenn.

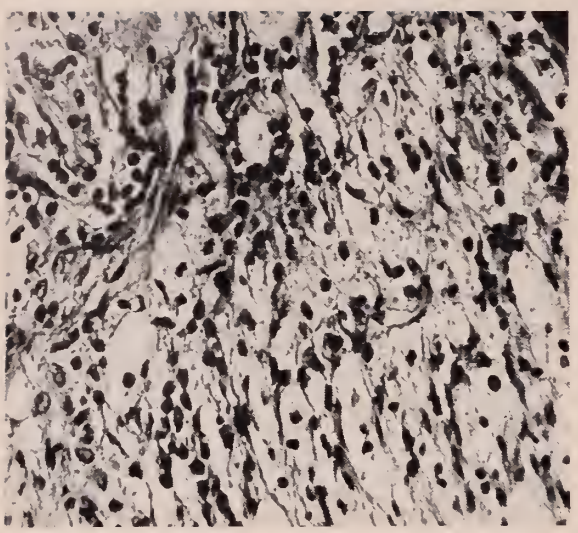


FIG. 2. Higher power of Fig. 1, showing clear cells with pyknotic nuclei.

right nephrectomy, with removal of the perinephric tissue in continuity, was performed. There was moderate drainage from the wound postoperatively, which persisted for 2 months. The patient has since been asymptomatic.

Sections of the kidney showed one large (6 x 2 x 2 cm.) cavity in the center of the kidney filled with necrotic material, and several smaller necrotic areas in the cortex. There were orange-yellow areas around the calyces, but no definite neoplastic mass was seen. (Fig. 3.) Microscopically, the architectural pattern of the kidney was markedly distorted. (Figs. 4 and 5.) There were seen large sheets of cells with clear, foamy cytoplasm and regular nuclei, interspersed with areas of chronic and acute inflammatory cells, and occasional multinucleated giant cells. The clear cells gave the appearance more of foam cells in these sections, however, and they took a fat stain. Review of the biopsy specimen then prompted revision of that diagnosis to xanthogranulomatous pyelonephritis, rather than neoplasm, in that it was thought that the numerous clear cells previously considered clear cell carcinoma were actually foam cells, or histiocytes; these, too, took a fat stain.



FIG. 3. Portion of resected renal mass showing virtual replacement by firm orange-yellow infiltrating mass.

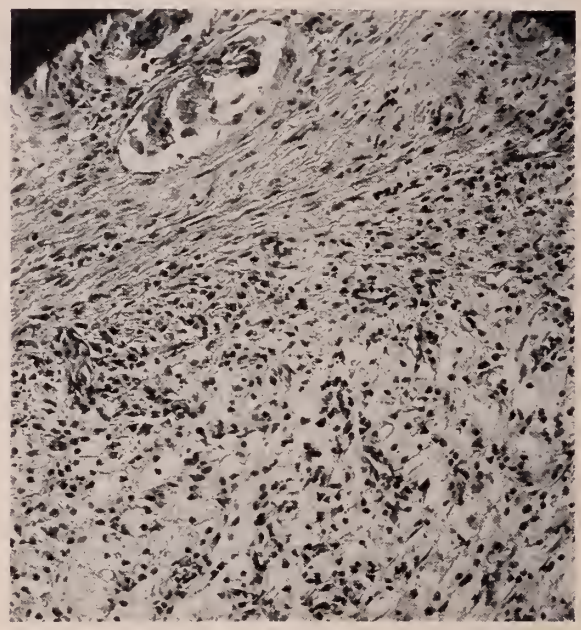


FIG. 4. Loss of normal architecture of the kidney. Areas of chronic inflammatory cells present.



FIG. 5. Multinucleated giant cells among the foam cells.

Discussion

Xanthogranulomatous pyelonephritis was first described as an entity by Rayer,[1] in 1837, though in 1778, Baader[2] had described a postmortem examination showing fatty renal changes in a case of ureteral calculus with pyelonephritis. Several authors since then have noted the striking similarity of this condition to hypernephroma, for example, Selzer, Dahlin and DeWeerd.[3] Their attention was called to this condition by seeing a patient alive and well nine years after the diagnosis of inoperable clear cell carcinoma of the kidney had been made by biopsy. They found 6 other cases in their files which were also grossly indistinguishable from hypernephroma, but which on careful microscopic study showed the clear cells to be histiocytes. Cangelosi[4] describes a case with a 3 cm. mass at the lower pole of one kidney which was originally diagnosed as clear cell carcinoma of the kidney, but which diagnosis was later revised when the clear cells were found to be full of fat when properly stained.

Resemblance of this condition to other disease states has been noted. Mack and Mador[5] explored a kidney and found a large pyonephrosis together with a large mass of papillary, red-yellow material which extended into the surrounding perinephric fat. This was thought to be papillary carcinoma, grossly, or perhaps tuberculosis, but pyogenic granuloma was diagnosed microscopically. Barrie[6] and Ghosh[7] had cases resembling tuberculosis, in that granulomatous lesions with some caseation were present, with epithelioid cells, inflammatory cells, and varying numbers of multinucleated giant cells. Foam cells were also in abundance, however. Ghosh,[7] and Mitchell and Dodson[8] also point out the resemblance of xanthogranulomatous pyelonephritis to actinomycosis of the kidney in certain instances.

One must bear in mind that all fatty conditions involving the kidneys are not of similar nature. Several authors[9-13] describe and discuss perirenal and intrarenal lipomas, which are generally encapsulated and are made up primarily of mature fat cells in a fibrous connective tissue stroma. These can become quite large and distort the kidney, but only through compression of the normal renal parenchyma, not invasion. Replacement lipomatosis, on the other hand, may be difficult to distinguish from xanthogranulomatous pyelonephritis. As used by some authors, the terms may describe synonomous conditions, but to most writers replacement lipomatosis indicates a much less severe entity manifest by the replacement of atrophic or infected renal tissue by peripelvic fat, unencumbered by a capsule or pseudocapsule. The replacement may be slight or very extensive, and may follow atrophy from nephrosclerosis, renal arteriosclerosis, amyloidosis, or chronic glomerulonephritis as well as following renal infection. Young,[14] in 1933, reported some perinephritis in one case of replacement lipomatosis not associated with pyogenic infection.

As may be surmised, no single etiologic agent has been found responsible for the production of xanthogranulomatous pyelonephritis. Virtually all the reported cases seem to be associated with renal infection, however, and generally with calculus pyonephrosis, as is the case presented here. Kutzmann[15] states that infection is always needed, and he noted calculi in 79% of the 33 cases he reviewed. Farrow, and associates,[16] substantiate these general findings. The case of Cangelosi,[4] however, points out vividly the presence of a calculus is not necessary to produce the fully developed picture of this condition, simulating tumor; infection alone is sufficient. Selzer,[3] too, feels that cases of xanthogranulomatous pyelonephritis appear always to be associated with pyogenic pyelonephritis, and he, in fact, distinguishes between this condition and replacement lipomatosis on the basis that the latter may stem from any condition which produces atrophy of the kidney, even without concomitant infection. The development of xanthogranulomatous pyelonephritis is not limited to obese individuals.

Assuming a primary renal infection in the production of xanthogranulomatous pyelonephritis, some individuals have searched for a specific etiologic bacterial strain. Surprisingly few authors have recorded culture reports in this condition, but when cited the most common strain recorded has been *B. proteus*, as in the present case. Ghosh[7] cultured this from 2 of his 3 cases and dis-

cussed it as a possible factor in producing xanthogranulomatous pyelonephritis. Certainly *B. proteus* can produce granulomatous lesions, as demonstrated by Larson and Bell.[17] Whether or not there is some cause and effect relationship between *B. proteus,* calculus pyonephrosis, and xanthogranulomatous pyelonephritis is still a moot question, but there exist some suggestive data.

Summary: Presentation is made of a case of xanthogranulomatous pyelonephritis which was initially misdiagnosed as clear cell carcinoma of the kidney, by biopsy. The pathologic similarities and dissimilarities of the two conditions are described. The possible etiological relationship of *B. proteus* pyelonephritis and xanthogranulomatous pyelonephritis is mentioned.

References

1. Rayer, P. F. O.: Traite des maladies des reins, Paris, J. B. Bailliere, 1839.

2. Baader, cited by La Crampe-Loustan, C.: Essai sur l'adipose du rein, These de Paris, 1881.

3. Selzer, D. W., Dahlin, D. C. and Deweerd, J. H.: Tumefactive Xanthogranulomatous pyelonephritis, Surgery 42:872, 1957.

4. Cangelosi, J. T.: Replacement Lipomatosis Resembling Renal Tumor, U. S. Armed Forces M. J. 4:743, 1953.

5. Mack, F. G. and Mador, M. L.: Pyogenic (foam cell) Granuloma in a Case of Pyonephrosis, J. Urol. 67:258, 1952.

6. Barrie, H. J.: Foam-cell Granuloma in Chronic Pyonephrosis Simulating Tuberculosis, Brit. J. Surg. 36:316, 1949.

7. Ghosh, H.: Chronic Pyelonephritis With Xanthogranulomatous Change: Report of Three Cases, Am. J. Clin. Path. 25:1043, 1955.

8. Mitchell, R. E., Jr., Dodson, A. I. and Kay, S.: Xanthogranulomatous Pyelonephritis, Am. Pract. 10:2150, 1959.

9. Simril, W. A. and Rose, D. K.: Replacement Lipomatosis and Its Simulation of Renal Tumors: A Report of Two Cases, J. Urol. 63:588, 1950.

10. Robertson, T. D. and Hand, J. R.: Primary Intrarenal Lipoma of Surgical Significance, J. Urol. 46:458, 1941.

11. Hunt, V. C. and Simon, H. E.: Perirenal and Intrarenal Lipoma, Am. J. Surg. (N. S.) 4:390, 1928.

12. Pemberton, J. de J. and McCaughan, J. M.: Intrarenal and Perirenal Lipomata, Surg. Gynec. & Obst. 56:110, 1933.

13. Roth, L. J. and Davidson, H. B.: Fibrous and Fatty Replacement of Renal Parenchyma, J.A.M.A. 111:233, 1938.

14. Young, H. H.: Lipomatosis or Destructive Fat Replacement of the Renal Cortex: Report of Eleven Cases, J. Urol. 29:631, 1933.

15. Kutzmann, A. A.: Replacement Lipomatosis of the Kidney, Surg. Gynec. & Obst. 52:690, 1931.

16. Farrow, F. C., Cross, J. B., Tannhauser, S. and Andrews, J. T.: Renal Lipomatosis, New York J. Med. 49:2924, 1949.

17. Larson, W. P. and Bell, E. T.: A Study of the Lesions Produced by Bacillus Proteus, J. Infect. Dis. 13:510, 1913.

ETIOLOGY OF BACTERIAL ENDOCARDITIS Before and Since the Introduction of Antibiotics. Wilson, Larkin M.: Ann. Int. Med. —:946, 1963.

Evaluation of all patients with bacterial endocarditis admitted to the Cleveland hospitals over a thirty year period is reported. During the five year period just prior to introduction to penicillin there was a dramatic decrease in the incidence of bacterial endocarditis. There has been, however, no significant decrease in the frequency since the introduction of penicillin. However, during the past twenty years there has been a difference in the frequency of offending organisms, though Alpha-hemolytic streptococcus is still by far the most frequent organism. There have emerged increasingly frequent cases with staphylococcus, gram-negative rods, fungi etc. Pneumococcal endocarditis is apparently now nonexistent. Almost one-half of the deaths in this series, since introduction of penicillin, have involved cases with other than Alpha-streptococcal endocarditis. No prepared regimen for therapy is given. (Abstracted for the Middle Tennessee Heart Association by Ralph Massie, M.D., Nashville.)

CASE REPORT

Retinal Detachment, Associated with External Exudative Retinopathy and Secondary Glaucoma in a Two Year Old Child*

Roland H. Myers, M.D., Memphis, Tenn.

D.A., a 2 year old boy, was seen Aug. 14, 1961. The history given by his mother revealed that the left eye had the appearance, when she looked at the pupil, as if it had a hole in it and that she had noticed this for about 6 months. For the past 2 days the eye had been red and tearing, and he had complained of severe pain. For the past 36 hours he had been nauseated and vomited several times. For a week he had had a severe upper respiratory infection with a high temperature and had been under the care of their family physician who had treated him with penicillin.

Examination revealed the right eye to be normal. The left eye showed edema of the lids, marked ciliary injection, "steamy" cornea, and the anterior chamber to be shallow with the lens appearing to be almost in contact with the posterior surface of the cornea. The pupil was about one-half dilated. Tension of the eyes was 60+ with a 7.5 Gm. weight. A detailed fundus examination could not be performed due to the "steamy" cornea. A cream colored appearing mass in the vitreous could be dimly seen and there appeared to be a few fine capillaries coursing over its anterior surface.

The *clinical diagnosis* of a possible retinoblastoma or an endophthalmitis with secondary glaucoma were considered the two most probable conditions present.

Because of the possibility of a tumor in a blind painful eye with secondary glaucoma, enucleation was advised and performed on Aug. 11, 1961.

Pathologic study on the eye was performed at the University of California San Francisco Medical Center by Dr. William H. Spencer. His *gross* examination was reported as follows:

"The specimen consists of a firm left eye measuring 20 x 21 x 20 mm. with a 3 mm. of optic nerve attached to the sclera. The specimen does not transilluminate. There are no scleral lesions. The cornea is diffusely hazy superiorly. The anterior chamber is slightly shallow. The lens and iris are displaced anteriorly. The section is horizontal. The lens-iris diaphragm is displaced anteriorly. Directly posterior to the lens, there is a funnel-shaped mass extending from the optic nervehead. This mass is yellowish brown, fluffy and hemorrhagic. Yellow white stalk-like retina lies in the center of this mass. The large subretinal exudate is yellow and contains fine flecks of gray white material.

"The *microscopic* examination report of the ciliary body, choroid, vitreous, retina, and sclera was as follows:

"*The ciliary body.* The ciliary body is *in situ*, but the ciliary processes have been displaced anteriorly and drawn centrally slightly. On one side they exhibit evidence of hemorrhagic necrosis with marked dispersion of the pigment and nonpigmented epithelium of this tissue. The ciliary muscle also exhibits evidence of hemorrhagic necrosis on this side and in the region of the pars plana, the ciliary vessels are surrounded by collections of chronic inflammatory cells.

"*Choroid.* The choroid is *in situ*. The choroidal vessels are congested in all meridians and the tissue is diffusely infiltrated with collections of lymphocytes which lie predominantly in a perivascular distribution.

"*Sclera.* The sclera is intact and is essentially unremarkable.

"*Retina.* The retina is completely detached. It extends in a stalk-like fashion from the optic nervehead posteriorly to the retrolental space and the ora serrata on both sides of the eye. The subretinal space contains dense collections of eosinophilic staining material in which there are numerous cholesterol ester slits and scattered collections of hemorrhage. Much of this hemorrhage appears to be quite fresh, but in some areas it is old and exhibits evidence of organization. In addition, there are numerous lipoidal filled macrophages scattered throughout this fluid. These exudates become more numerous as one approaches the anterior portion of the retina and on one side immediately behind the lens, between the retrolental space and the ora serrata, the retina exhibits severe necrosis. Here the outer layers of the retina appear to be chuck full of eosinophilic staining material similar to that observed in a subretinal space. There has been considerable hemorrhage into this tissue and numerous dilated vascular spaces are observed lying within this thickened area. A similar zone cannot be found anywhere else in the retina. The remaining portions of the retina exhibit evidence of degenerative changes incident to detachment and subsequent gliosis. We see no evidence of a retinoblastoma in any of the sections examined nor of any other neoplasm.

"*Diagnosis:* Retinal detachment, associated with external exudative retinopathy."

Comment

The lesion observed in this retina has many of the characteristics of the external exudative retinopathy which has been termed "Coat's Disease." The presence of dilated vascular channels in the area of greatest exudation leads one to wonder whether a vascular tumor was not present in this area prior to the detachment. The possibility of a hemangioma of the retina and/or multiple miliary aneurysms of the retina must be considered in this case. Care-

*Read at the meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 10, 1962, Memphis, Tenn.

ful examination of the fellow eye should certainly be undertaken and a long term follow-up of this eye made. We see no evidence of a retinoblastoma in any of the sections examined. (The right eye remained normal on last examniation, April 16, 1962.)

POTENTIAL PREVENTABILITY OF FIRST ATTACKS OF ACUTE RHEUMATIC FEVER IN CHILDREN. Grossman, Benton J. and Stamler, Jeremiah, J.A.M.A. 183:985, 1963.

Appropriate therapy of group A Beta hemolytic streptococcal infection offers prevention of the late nonsuppurative complications; namely, rheumatic fever and potential rheumatic heart disease. Rheumatic fever attacks may result from streptococcal infections, usually either inadequately treated (failure to eradicate the infecting organism) or from subclinical infections with minimal or absence of antecedent symptoms or signs. The authors carefully reviewed 110 consecutive cases of children hospitalized for a first attack of rheumatic fever in an attempt to quantitate the scope of this problem and to estimate the present-day preventability of attacks of acute rheumatic fever.

The American Heart Association Committee on Prevention of Rheumatic Fever and Bacterial Endocarditis currently recommends intramuscular penicillin (benzathene penicillin G), one injection of 600,000 to 900,000 units, as the method of choice, or procaine penicillin 300,000 units I.M. every third day for 3 injections, or oral penicillin 200,000 to 250,000 units t.i.d. for ten days. In the event of penicillin sensitivity, ten days of broad-spectrum antibiotics is the usual recommendation. Ninety-four of the 110 cases presented a history of infection within five weeks before the onset of rheumatic fever. Sixty-two of the patients had been seen by a physician. Of these, 50 received antibiotic therapy; but only 10 patients received adequate therapy by the criteria summarized above. Throat cultures had been made in seventeen of the cases.

In this group of 110 patients reviewed, 54 (49.1%) had residual cardiac damage at the time of discharge from the hospital. The potential for preventability—up to 84% of hospitalized cases for first attacks of acute rheumatic fever—warrants vigorous efforts to achieve this potential preventability. Adequate measures are available for therapy. With thorough understanding by parents of the need for medical diagnosis and treatment for such children as well as optimal diagnostic and therapeutic approaches by physicians, the incidence of acute rheumatic fever and resultant rheumatic heart disease must continue to decline. (Abstracted by the Middle Tennessee Heart Association by Ben J. Alper, M.D., Nashville.)

STAFF CONFERENCE

John Gaston Hospital*

Psoriatic Arthritis

DR. LAWRENCE D. AMICK: Today's patient has had a diagnostic and therapeutic problem for two years. Accepting psoriatic arthritis as the principal diagnosis, our discussion could profitably be limited to its management alone. But as this case is complex, and the diagnosis may to some extent be challenged, the case presentation will be as succinct as possible to permit more discussion.

Present Illness. This 50 year old white male structural steel foreman was admitted to John Gaston Hospital on April 26, 1963. He dated the onset of his illness to a persistent "cold" 2 years before which was treated with an antibiotic. He returned to work within 2 weeks but noticed unusual fatigability and increasing muscular weakness. He was hospitalized and told that he had a low blood count and rheumatoid arthritis. Therapy consisted of Celestone (betamethasone) and a "mycin" but he has never returned to work. During the past 2 years he has been treated with corticosteroids for "rheumatoid arthritis." He has had a "skin rash" at times, attributed to medication. One month before the present hospitalization he developed "flu" with sore throat, cough, chest pain, weakness and fever. Following antibiotic therapy, a prominent rash developed over his body and face.

Past History. He had good health except for "typhoid fever" at the age of 10 years.

Physical Examination. B.P. was 100/60, P. 86, R. 22, and T. 102°. He was a well developed white man, was coughing and appeared sick. He had an erythematous and papular scaling rash over the chest and neck, face, forehead and scalp. The wrists appeared purpuric. Crackling rales were present in the left lung base. The heart showed sinus tachycardia, but no murmurs or enlargement were demonstrable. The spleen was palpable, and the liver questionably so. Most joints bilaterally, including the distal interphalangeal, were tender, with range of motion slightly restricted. There was generalized muscular atrophy, with associated loss of strength, but the neurologic examination was otherwise negative. There was a marked subungual tissue excrescence.

Laboratory Findings. The urine was negative. WBC. count was 3,900, with lymphocytes 44%, monocytes 18%, and segmented neutrophils 37%. A gram stain of the sputum showed a few gram-positive diplococci. R.A. test and L.E. prep. negative. Fluorescent antibody test (for antinuclear factors) was positive with undiluted serum only. PPD and histoplasmin skin tests were negative. X-ray films of hands and feet revealed moderate juxtaarticular osteoporosis and small punched-out lesions, without decrease in joint space or any subluxation. The punched-out lesions, occurring also in the distal middle phalanges, were considered most compatible with psoriatic arthritis. The chest x-ray was negative.

Marrow preparation (iliac crest) revealed maturation arrest affecting cells of the granulocytic series. Liver punch biopsy revealed no pathologic change. Blood cultures were negative. Coombs test was negative.

The resident's admission note initially favored the diagnosis of acute lupus erythematosus with possible associated drug reaction. Also considered were psoriasis, tuberculosis, fungus infection, and pyogenic infection.

DR. W. R. ROSENBERG: By history, the patient has been treated primarily for arthritis, and his skin lesions have apparently been misinterpreted. On admission he had wide-spread skin disease with particularly heavy scaling and redness about the scalp, scalp margin, forehead, ears, groin, and elsewhere, and also dystrophic changes and distal separation of the nails. This is typical of psoriasis and could be nothing else.

DR. GLENN M. CLARK: Do you think this was overlooked for a number of years?

DR. ROSENBERG: Yes, this seborrheic form may be mistaken for heavy dandruff. It is also possible that the development of arthritis converted his psoriasis into the full-blown form we see now.

DR. AMICK: Some thought he might have a lupus rash, and attributed the nail changes to fungus. How do you differentiate?

DR. ROSENBERG: Even the most expert dermatologist cannot always tell psoriatic nails from those infected with fungus. It is rare, however, for *Trichophyton rubrum* to affect all the nails symmetrically. To be absolutely certain, cultural studies would be necessary.

DR. AMICK: Some thought that involvement of the toenails favored fungus.

DR. ROSENBERG: It is difficult to evaluate the toenails in this respect, as most adults have some abnormalities of toenails. But even if he has tinea, he also has psoriasis.

DR. CLARK: I certainly agree that this patient with typical skin lesions, with in-

*From the Department of Medicine, University of Tennessee College of Medicine, Memphis, Tenn.

volved toenails, and with arthritis involving the distal interphalangeal joints has the findings of psoriatic arthritis. However, this does not satisfactorily explain splenonegaly, hepatomegaly, rales in the lung, leukopenia, 18% monocytosis, and a positive fluorescent antibody titre for antinuclear factors. With such evidence of multisystem disease we must consider that most protean of the auto-immune diseases, i.e., lupus erythematosus.

DR. AMICK: Could this patient have Felty's syndrome?

DR. CLARK: Felty's syndrome is rheumatoid arthritis with an enlarged spleen and leukopenia. Many people now believe that patients with this syndrome have disseminated lupus erythematosus.

Since we don't know the etiology of psoriasis, lupus, or rheumatoid arthritis, we must discuss differential diagnosis primarily on the basis of symptom complexes and morphologic changes.

DR. ROSENBERG: Certainly nobody knows the cause of psoriasis, and the final word on lupus is not yet in. We are simply discussing these diagnoses on different levels, just as the archeologists excavate ancient cities, layer by layer. You have laboratory tests for lupus. There are no tests for psoriasis. If it looks like psoriasis, it is; if it doesn't, it isn't. His skin changes are those of psoriasis, not lupus. Dr. Clark, do you consider his fluorescent antibody titre as diagnostic here?

DR. CLARK: No, it was positive only without dilution. But is there no room for clinical doubt? For instance, can psoriasis always be differentiated from the lesions accompanying Reiter's disease? Even microscopically?

DR. ROSENBERG: No, it cannot, microscopically. It may also be indistinguishable from keratoderma blennorrhagicum, impetigo herpetiformis, and acrodermatitis continues. These may look alike. The negative R. A. test tends to push these into the psoriatic family of arthritides.

DR. CLARK: We agree that this patient has psoriasis and a form of arthritis considered to be associated with this disease. Opinions differ as to whether psoriasis and associated arthritis share a common etiology. But we do see a severe form of psoriatic arthritis that takes an acute fulminating course that may lead to death. In such situations, coupled with the systemic involvement seen in today's case, we think of a collagen disease with an auto-immune response.

DR. AMICK: This is an appropriate juncture to take up the management of these diseases. The evolution of this patient's disease had been altered, possibly for the worse, by corticosteroid therapy for a year or two. He was acutely ill when admitted. But in view of his history, can he be considered as an example of an acute fulminating psoriatic arthritis? Instead, could his symptoms not be attributed now to systemic complications from steroid therapy?

DR. ROSENBERG: Let me decry the use of systemic corticosteroids in treating psoriasis or even psoriatic arthritis. Psoriasis used to be considered a relatively benign disease. In my experience the worst cases and worst complications are now observed only after systemic steroid therapy.

DR. CLARK: It is true that steroid intoxication may mimick the finding of lupus, and may even give a positive L. E. prep. However, I believe that steroid therapy was necessary for this patient on his admission.

DR. AMICK: What are your criteria for using steroids?

DR. CLARK: Life-threatening illness such as lupus, with severe cardiac, hematologic or nephritic complications is justification. In addition, chronic rheumatoid arthritis may require steroids to maintain functional capacity.

DR. AMICK: To what extent does the risk of steroid intoxication influence your decision?

DR. CLARK: Any patient who is receiving steroid therapy is to a greater or lesser extent intoxicated. This is a pharmacologic agent rather than replacement therapy. Certainly, in the treatment of rheumatoid arthritis a daily dose of prednisolone or its equivalent, which is maintained at 10 mg. or less, is not likely to produce serious toxicity, although sooner or later complications of therapy will occur.

DR. AMICK: It appears that steroid therapy might have been justified to control our patient's rheumatoid or psoriatic arthropathy. It may have been necessary on

admission for treatment of a crisis of systemic lupus erythematosis. But this brings us to face the overdue question, were conservative means of therapy properly deployed? Assuming that psoriasis with or without psoriatic arthritis had been properly diagnosed, what would the dermatologist advise?

DR. ROSENBERG: Psoriatic patients with associated arthritis have two problems, and the therapy is adjusted to whichever problem is bothering the most at the time. The skin manifestations respond to steroids, but the psoriasis tends to get worse on withdrawal, and sometimes even while on unchanged maintenance dosages. There is clearly no choice but to avoid using corticosteroids if the patient is healthy and feeling well even though he has bad skin disease.

DR. AMICK: Won't you agree that ultraviolet therapy may help the "bad skin"?

DR. ROSENBERG: Certainly. And the skin may be helped by tar. And corticosteroids may be used safely when applied topically. If so needed, we use a "Saran" wrap. To treat the patient from the "outside" involves messy linens, some hospitalization, sun-bathing, and some loss of time, but avoids complications of systemic steroids.

DR. AMICK: Likewise, psoriatic arthritis warrants physical therapy. Hydrotherapy, whether in the fancy form of a Hubbard tank or a humble warm tub bath for generalized joint and skin disturbance, may help both skin and range of motion, and by its sedative effects encourage patience and cooperation. The energetic patient without patience may actively seek a steroid shortcut. The physician should convert the anxiety and energy of the patient into an active physical therapy program.

DR. CLARK: We all agree on this. We must determine the real efficacy of a conservative program before resorting to steroids. But this does not always mean that we pursue a conservative regimen to the bitter end. Sometimes a patient cannot afford more prolonged hospitalization or work lay-off, and the maintenance of functional capacity may take precedence over the risks of steroid intoxication. The patient helps decide this.

DR. AMICK: We all accept risks in modern technology, as in traveling by plane to save time. But perhaps we will agree that getting healthier more quickly is propounded with reservations.

DR. CLARK: Yes, the patient's physician should follow the principles of wise management, and minimize steroids. The patient should be kept at the point of rebellion or somewhere short of steroid euphoria.

DR. ROSENBERG: Certainly the patient should not be permitted to resort to pills just to avoid staining the sheets and using greasy compounds. We know what's best for the patient, and this may not be synonymous with complete freedom from all pains and symptoms.

DR. CLARK: These reservations apply equally to various other toxic drugs which might be used in such arthropathy, e.g., various antimetabolites, aminopterin, and antimalarials. But while toxic drugs are sometimes justifiable, generally aspirin and physical therapy are the best answer to arthritis associated with psoriasis. Finally, in those patients in whom steroids are justifiable, these hormones tend to work less well in psoriatic arthritis than in rheumatoid arthritis.

DR. ROSENBERG: And antimalarials may cause a severe psoriatic flareup.

DR. AMICK: To summarize, we agree that the physician handling psoriatic arthritis wisely should be a conservative rheumatologist in employing corticosteroids, a dermatologist in using tarry compounds and topical steroids, and a physiatrist in advising exercise therapy and possibly ultraviolet therapy.

CLINICOPATHOLOGIC CONFERENCE

Thrombotic Thrombocytopenic Purpura*

A 47-year-old white man entered Vanderbilt University Hospital on June 2, 1954 complaining of passage of blood in his urine.

P. I.: The patient was initially admitted to Vanderbilt University Hospital on May 2, 1952 for evaluation of nervousness. At that time he gave a history of having "confused thoughts." Four days prior to admission he had become argumentative, had acted unusually nervous, and had required an injection by his physician to be quieted. Two days prior to admission, he became confused and behaved in an atypical manner. He denied fever, headache, or other neurologic symptoms.

Examination at that time revealed a B.P. of 110/70, P. 88, R. 20, and T. of 99.8° F. Physical and neurologic examinations were unremarkable save for a few discrete nonmovable axillary and inguinal nodes. Laboratory examination at that time revealed a normal urinalysis and hemogram. Blood Kahn was negative. A lumbar puncture showed an opening pressure of 140 mm., a cerebrospinal fluid protein of 37 mg. and 1 leukocyte. The cerebrospinal fluid VDRL and Wasserman were negative. Skull films were normal. An EEG. was interpreted as indicative of generalized cortical dysfunction without focalization. Psychologic tests were "somewhat suggestive" of organic brain damage." Because of the absence of definitive findings, he was discharged to return if symptoms progressed.

During the interval the patient felt well and continued work. Ten days prior to admission the patient began to pass "coca-cola" colored urine. He was hospitalized elsewhere 8 days prior to admission, where icterus and slight oozing of blood from his gums were noted. He denied fever, chills, dyspnea, back pain, easy bruisability, prolonged bleeding from cuts, or family history of a bleeding disorder. He was transfused, given penicillin, and transferred to Vanderbilt University Hospital.

Physical examination. B.P. 104/62, T. 99° F., P. 80, and R. 22. The patient was well developed and in no distress. There was obvious pallor and icterus. Two or three petechiae were noted below the left scapula as well as two spider hemangiomas over the sternum. A soft spleen could be palpated in the L.U.Q., the liver was not enlarged to palpation. Neurologic examination was said to be "physiologic."

Laboratory Studies. Urinalysis revealed a specific gravity of 1.012, pH 4.5, 1+ proteinuria, and a negative reaction for sugar. Microscopic examination of urine sediment showed 1 to 3 coarse granular casts, 15 to 20 RBC., occasional WBC. per h.p.f. Subsequent urinalyses contained many red blood cells. The RBC. count was of 1.85 million per cmm., Hgb. 6.3 Gm., PCV. 20%, and reticulocyte count of 30%. RBC. indices were MCV 108, MCH 34, MCHC 32, ESR 5. The platelet count was 2,500 per cmm. The WBC. count was 5,600 cells per cmm. Differential count showed 13 juveniles, 56 segmented granulocytes, 0.5 basophils, 27.5 lymphocytes, and 3 monocytes per 100 leukocytes. There was marked anisocytosis, moderate poikilocytosis, a number of spherocytes, and 7 nucleated red blood cells per 100 WBC. The platelets were markedly decreased on smear. The bleeding time was over 25 minutes, the coagulation time normal. Tests for circulating anticoagulant were negative. Preparations for lupus erythematosus cells and sickle cell preparations were negative. Coombs test by both the direct and indirect methods was negative. Watson-Schwartz test for porphobilinogen was negative. Fragility tests on the patient's red cells showed hemolysis beginning at 0.60 and completed at 0.36, while control cells showed initial hemolysis at 0.45 ending at 0.36. The N.P.N. was 36 mg.%, total serum protein 5.9 Gm. with an albumin of 3.7 GM.%, alkaline phosphatase 2.6 units, indirect bilirubin 2.1, direct 0.3 mg. Cephalin flocculation test was negative, thymol turbidity 1.0, uric acid 6.6 mg.%, prothrombin time 75% normal. The blood Kahn was negative. Chest x-ray film was interpreted as normal. Bone marrow could not be adequately interpreted because of dilution by peripheral blood.

Course. During the first 3 hospital days, the patient's course was unremarkable save for a temperature of 100° F. On the 3rd hospital day, he developed slight dysarthria, occipital headache and numbness in the left arm. Slight deviation of the uvula to the right was noted. The patient was given three units of whole blood, and ACTH, 40 units daily by intravenous infusion was instituted. Four units of blood were required to increase the hematocrit from 20 to 37%. On the 4th day, a pulse of 45 was detected and a sinus bradycardia was noted on EKG. On the 5th hospital day a splenectomy was performed. The spleen was noted to be three times normal size and the liver significantly enlarged. Blood samples obtained simultaneously from the splenic artery and vein showed 3,050 platelets per cmm. in the splenic artery and 2,700 platelets per cmm. in the splenic vein. Five minutes after splenectomy, the circulating platelet count was 2,750 platelets per cmm.

His course was steadily downhill. The platelet count remained low, ranging from 3,000-9,000 platelets per cmm., and bleeding time remained prolonged. Serum bilirubin rose to 6.5 mg. with 3.4 mg.% in the conjugated fraction. The hematocrit fell to 27% and an additional two units of blood were required.

On the 8th day of hospitalization, he was begun on cortisone, 100 mg. I.M. every 6 hours, and

---

*From the Departments of Medicine and Pathology, Vanderbilt University Hospital, Nashville, Tenn.

ACTH gel 40 mg. I.M. once daily. Six mg. of nitrogen mustard were given intravenously. The WBC. count rose to 23,500 with 1.5% undifferentiated myelocytes, 19% juvenile forms, 73.5% segmented forms, 4 lymphocytes, and 3 monocytes per 100 cells. The reticulocyte count was 16.3% and 32 nucleated red blood cells per 100 WBC. were noted on smear. He became increasingly restless, his temperature rose progressively to 104° F., and he died on the 13th day of hospitalization.

DR. DAVID E. ROGERS: Today we are presented with the problem of a 47-year-old man who died with a rapidly advancing, bizarre illness heralded by hematuria. Let us consider the events as they arose.

This man's initial admission was precipitated by sudden change in mentative status. On that admission his physical examination was singularly unremarkable. I am sure a number of possibilities occurred to the physicians who were taking care of him at that time. Many of them were ruled out by his laboratory studies. Those that would come to mind would include drug intoxication, encephalitis, central nervous system syphilis, a space occupying lesion—either a tumor or a granuloma, a cerebral thrombosis, or acute porphyuria. The studies outlined make encephalitis, syphilis, and a space occupying lesion all unlikely, but we cannot make a definite diagnosis on the basis of our limited evidence. We are left uncertain at this moment as to whether the initial admission was or was not of importance as a clue to his terminal illness.

The second admission was precipitated by the passage of what is termed "coca-cola" colored urine. While I initially felt this an inappropriate and colloquial characterization, a recent trip around the world convinces me that the color of "coca-cola" is known throughout the medical world, and this symptom suggests a number of possibilities. Substances which may produce such a change in the color of urine include hematuria *per se,* hemoglobinuria or myoglobinuria, uroporphyrins, large amounts of urobilinogen, the passage of alkaptons in the rare disease termed ochronosis, or the excretion of certain dyes or pigments contained in foodstuffs.

I believe we can summarize this illness by stating that it was characterized by rapidly progressing weakness, pallor, icterus, neurologic signs, fever, and possible abnormalities in cardiac conduction. The notable findings on physical examination included petechiae, the oozing of blood from the gums, splenomegaly, and neurologic findings. In this case, the laboratory work offers us some very definitive clues to diagnosis.

The finding of a normocytic, normochromic anemia, elevated indirect bilirubin, striking changes in the shape and size of the red cells, and the presence of nucleated red blood cells and many reticulocytes in the peripheral blood are characteristic of a hemolytic anemia. While acute hemolytic episodes often produce fever, chills, dyspnea, and back pain, their absence in this case does not alter the clear evidence of a rapidly progressing hemolytic process. In addition to acute hemolysis, we have striking evidence of other hematologic abnormalities. The findings of petechiae, many red blood cells in the urine, and the prolonged bleeding time all suggest thrombocytopenia, and indeed this was confirmed by repeated platelet counts throughout the course of this man's illness.

We can thus state that this patient had a rapidly progressing hemolytic anemia, thrombocytopenia, and hematuria. While tests for hemoglobin in his urine are not noted in the protocol, it seems probable that either hematuria or hemoglobinuria may have been present to account for this man's coca-cola colored urine.

I have previously indicated in these conferences that it is well to pick one or two central features in the history, physical examination, or the laboratory work as points of orientation about which to build a diagnosis. In this instance, the striking hemolytic anemia and the persistent thrombocytopenia can serve this purpose.

While hemolytic anemia or thrombocytopenia occurring as isolated abnormalities each raise many diagnostic possibilities, their simultaneous occurrence is uncommon. Let's consider each of these abnormalities separately and then decide if one disease entity can satisfactorily explain both findings.

The causes of hemolytic anemia can be roughly grouped in two categories:

(a) Hemolytic processes occurring with corpuscular defects. These are usually of a genetic or hereditary nature.

(b) Hemolysis produced by extracorpuscular causes. These are usually "acquired" or secondary to a wide variety of disease processes.

The hemolytic anemias generally associated with intra-corpuscular defects include sicklemia, thalassemia major, hereditary sperocytosis, and certain rarer hereditary forms of chronic or episodic hemolysis. None of these diseases seems likely here. All of these diseases of red cells have a strong hereditary background, generally make their appearance at an early age, are often associated with developmental abnormalities due to anemia and long continuing hemolysis, and are characterized by acute, recurrent episodes of hemolysis often associated with fever and bone, joint, or abdominal pain.

There are many acquired or secondary causes of hemolytic anemia. Infections like malaria, or infections produced by *Clostridium welchi* produce intravascular hemolysis. Many drugs have been implicated. Certain agents like phenylhydrazine or snake venom appear to produce hemolysis by direct action as selective red cell poisons. Others like quinidine or primaquin require a genetic defect in the red cell—in this instance a deficiency in glucose-6-phosphate dehydrogenase for hemolysis to occur. In the adult we often encounter hemolytic anemias as an indicator of certain ominous underlying disease. Some 10 to 15% of patients with chronic lymphatic leukemia manifest intravascular hemolysis at some time during the course of their illness. Sometimes the hemolytic anemia may precede obvious evidence of leukemia. Eight to 10% of patients with Hodgkins disease develop hemolytic anemia. Again, this may herald the onset of their disease. Hemolytic anemia has been seen in patients with lymphosarcoma, and it is a recognized feature of disseminated lupus erythematosus. Acute hemolytic anemia is also a striking feature of the unusual disease entity we call thrombotic thrombocytopenic purpura.

Despite these well recognized "etiologies" of acute hemolytic anemia, the cause is not evident in the majority of patients. In over 50% of patients we are left with the term "idiopathic" hemolytic anemia. There is much to suggest that the majority of such idiopathic hemolytic anemias have an immunologic basis. The Coombs test has advanced our thinking in this area. This test, performed with rabbit antibody to human globulin, has shown us that the red cells from such patients are coated with antibody globulin. This finding has led to the belief that many of the hemolytic anemias may represent "autoimmunity" to the hosts own red blood cells. Most patients with "idiopathic" hemolytic anemia have positive Coombs tests.

In the present case, we can rapidly rule out most of the above possibilities. There is nothing to suggest that this represents one of the hereditary or intracorpuscular defects. There is nothing to suggest infection, and we have no history of drug ingestion. There is no evidence of leukemia or a lymphoma. The absence of a positive Coombs test rules against idiopathic or autoimmune hemolytic anemia. That this may represent disseminated lupus erythematosus or thrombotic thrombocytopenic purpura is quite likely, and I will return to these possibilities after considering possible reasons for thrombocytopenia which was such a striking feature in this case.

Thrombocytopenia results from decreased production of platelets or their excessive destruction or removal from the circulation.

In general, decreased production is seen in association with diseases which replace the bone marrow. Leukemia, lymphomas, metastatic carcinoma, certain granulomas, or sclerosis or fibrosis of the marrow can cause thrombocytopenia. Rapid destruction or disappearance of platelets can occur following the use of certain drugs such as nitrogen mustards or radiation, rapid intravascular coagulation such as that seen in certain postpartum bleeding states, in certain infections, or with massive blood replacement. Certain drugs like sedormid, quinine, or quinidine cause thrombocytopenia by interaction with platelets in certain individuals. Such drug-platelet complexes seem to become antigenic and autoantibodies develop which appear causally related to subsequent thrombocytopenia. Diseases in which splenomegaly is a feature are sometimes associated with thrombocytopenia. Here low levels of circulating platelets appear to be due to excessive

splenic destruction of thrombocytes. Thrombotic thrombocytopenic purpura, as the name implies, is associated with profound thrombocytopenia.

As in hemolytic anemias, the majority of patients with thrombocytopenias, do not manifest any detectable underlying disease. In 60 to 70% of instances, the thrombocytopenia is "idiopathic." Splenectomy is successful in correcting the thrombocytopenia in the majority of such patients. It has been demonstrated that a serum factor plays a role in idiopathic thrombocytopenia and transfer of plasma from such patients can produce thrombocytopenia when injected into normal recipients.

What possibilities apply to our patient? Only three seem to require consideration and one disease seems most likely.

(1) A lymphoma or Hodgkins disease could conceivably produce the clinical picture described in this instance. The central nervous system symptoms might be ascribed to multiple bleeding sites within the brain. There is so little ancillary evidence to support such a diagnosis that I will discard it.

(2) There are certain features to suggest disseminated lupus erythematosus. The presence of fever, a hemolytic anemia, thrombocytopenia, evidence of central nervous system, renal, and possibly cardiac involvement are all compatible with lupus erythematosus. On the other hand, the fact that the patient is a man, the absence of positive LE preparations, and the absence of a leukopenia, lead me to eliminate this possibility.

(3) The clinical and laboratory features of this case and the clinical course all suggest that this man had the unusual and almost uniformly fatal disease which has been termed *thrombotic thrombocytopenic purpura*. This disease entity was first described by Moschowitz in 1925. To date, approximately 120 cases have been recorded in the literature. It appears to affect both men and women over a broad age range. The clinical picture has generally been characterized by fever, acute hemolytic anemia, thrombocytopenia, and bizarre shifting neurologic signs. The majority of patients have pursued a rapidly fatal course lasting eight or nine weeks. However, 10 to 15% of cases have had a longer history, ranging from one to three years and transient symptoms and signs similar to those manifested by this patient 2 years previously have been described. Dr. Robert Hartmann has followed 2 patients with well established thrombotic thrombocytopenic purpura for periods of over six to eight years within this institution.

In general, patients who have pursued longer clinical courses have in many ways resembled patients with disseminated lupus erythematosus. Despite impressive hemolytic anemia, the Coombs test has been negative in the majority of instances; only 6 of 100 patients so studied have had a positive Coombs test. Therapy has been of little benefit in most patients. Steroids in conventional doses have had little effect, and splenectomy which has been performed in 18 of 116 patients has produced little detectable change in the course of the illness of the majority although a few have had remissions following splenectomy.

It was initially believed, and indeed this opinion is still held in many areas, that the widespread thrombotic lesions seen in the brain, heart, kidneys, and other organs represented masses of agglutinated platelets and fibrin. In many instances, the close relationship between drug ingestion or some other exposure to a potentially allergenic substance and the onset of TTP has suggested that this disease may represent a profound hypersensitive phenomenon. Recent studies on the thrombotic material suggest that it is predominantly fibrin and certain of the vascular lesions indicate that this disease may be a close cousin of disseminated lupus erythematosus.

I believe this patient had typical acute *thrombotic thrombocytopenic purpura*. Some of the interesting observations which have been made on this illness can be recounted if this proves to be the case. Perhaps Dr. Shapiro can tell us the findings in this patient and we will then ask Dr. Robert Hartmann to add his comments.

DR. JOHN SHAPIRO: At the time of splenectomy an abdominal muscle biopsy was obtained and from this a presumptive diagnosis of thrombotic thrombocytopenic purpura was made. From this and similar cases I can say that I believe it is possible to make an unequivocal interpretation on

this lesion when encountered in biopsy of muscle or subcutaneous tissue. We have had the opportunity to make such a diagnosis in other cases. The illustration (Fig. 1) shows a small venule with a hyalinized

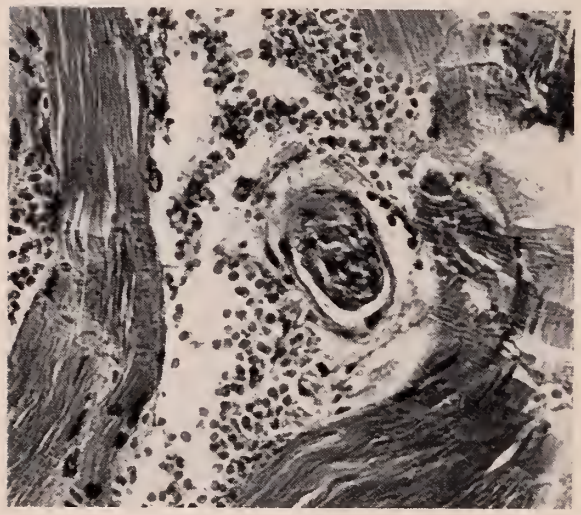


FIG. 1. Characteristic thrombotic lesion in venule in muscle biopsy. Red cells are numerous in interstitial spaces.

thrombus in it. There is no cellular reaction about it but a few endothelial cells are seen, apparently covering the thrombus or lining interstices. Such a finding is diagnostic when taken in association with a suggestive clinical history.

Interestingly enough, the spleen which had been removed surgically was moderately enlarged, but was free of significant hemolysis—which would be indicated by goodly amounts of hemosiderin and macrophages in the spleen. No thrombosed vessels were found in the spleen. This is an item of some interest in view of our experience that this characteristic lesion is found so frequently in lymph nodes.

The evidence of a hemorrhagic diathesis was the most striking feature of the gross autopsy examination. There were petechial hemorrhages over the serosal surfaces and particularly in the pericardium. Larger ecchymotic areas were seen here and there—for example, on cut section of the myocardium. The organs otherwise were generally within normal limits. I would like to show you an illustration of the classic lesion from the myocardium (Fig. 2). The lesions seem to be of varying ages and I might say that in what I interpret to be a forming lesion, under oil immersion, I can make out morphologic forms which almost

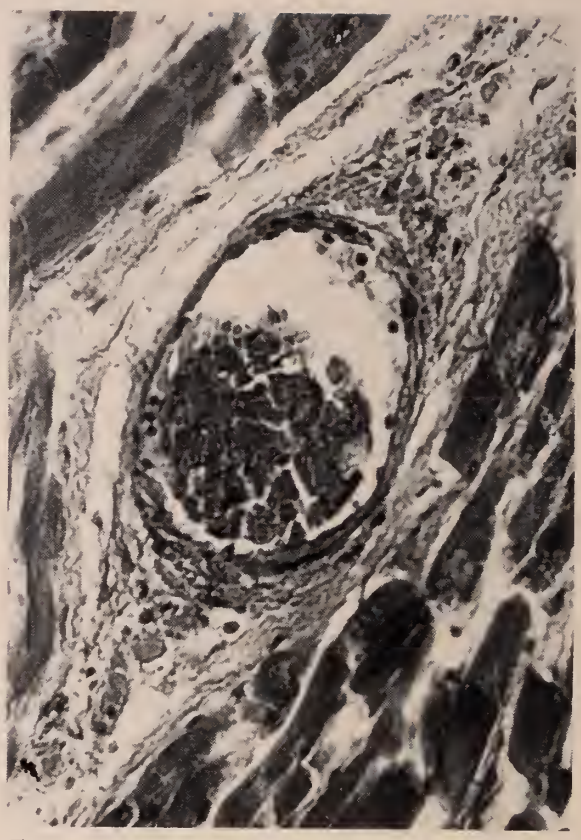


FIG. 2. Moderately advanced lesion in vessel in heart; thrombotic lesion not invested with endothelium.

certainly represent conglutinating platelets. (Fig. 3.)

In the examination of the brain, there were petechial hemorrhages manifest on the cut surfaces without other focal lesions. These were especially prominent in this case in the area of the pons. Histologic section shows the characteristic features with focal extravasation of red cells and hyaline masses occluding what I interpret to be the small venules. (Fig. 4.) Lesions similar to those that we have presented were found in many organs—kidneys, adrenals, esophagus, etc.

In correlating the essential clinical features with the pathological findings, I would like first to discuss the purpura which occurs and its pathogenesis. In this case, there was a very active proliferation of megakaryocytes in the bone marrow with apparently normal platelet formation. As I indicated above, it is my feeling that thrombi are formed at least partially by amassing and adherence of platelets locally and that one must consider the possibility that the low platelet count results from

From the Executive Director

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Kerr-Mills Expansion

● Expanded Medical Assistance to the Aged services in Tennessee include: 20 days of hospitalization (instead of 15); expanded drug formulary; nursing home payments increased ($95-$125, instead of $80). Old Age Assistance hospitalization criteria now include life-endangering or sight-threatening illnesses; OAA has the same drug formulary and nursing home payments as MAA. (See "Medical News in Tennessee" for further details in this issue of the Journal.)

Recommendations by TMA Committee on Implementation and Expansion of Kerr-Mills Law

● At a meeting of the Committee on May 26th, it was determined that the following actions should be taken. (1) Full information about the Kerr-Mills Program and its implementation should be thoroughly made known to the medical profession in Tennessee. (2) Editors of daily and weekly newspapers within the state should be informed relative to the program, its scope and purpose. (3) The best possible liaison should be maintained with Congressmen. They should be kept informed by furnishing them with regular reports concerning the progress and scope of the program in Tennessee. (4) It was determined that the Consultative Committee of TMA to the Governor, should be the official committee to deal with the Governor and the State Government relative to recommendations and additional programming under the Kerr-Mills Law. (5) It was recommended that the Committee on Implementation should tactfully discuss with proper officials of the Department of Public Welfare, the manner of physicians' fees since they are not included in the state program.

Report of Actions of AMA House of Delegates, June 16-20, Atlantic City

● Enlargement of the Board of Trustees, the sections and scientific program of the AMA, interns and residents, a new Institute for Biomedical Research, a physician's pension plan and the relation between tobacco and disease were among the major subjects acted upon by the House of Delegates of the American Medical Association at the 112th Annual Meeting held June 16-20 in Atlantic City.

Dr. Norman A. Welch, Boston, Speaker of the House of Delegates, was named President-elect and will take office in 1964, succeeding Dr. Edward R. Annis who assumed the office of President at the meeting.

AMA Board of Trustees

● The House adopted amendments to the Constitution and By-Laws designed to implement the recommendations presented for enlargement of the Board of Trustees. The size of the Board will be increased from 11 to 15 members. The purpose of the enlargement is to improve communications between the Board and the Association and would be consistent with the increase in membership of the Association and with the increase of the size of the AMA House of Delegates.

Interns and Residents

● The House disapproved the report of the Council on Medical Service and the Council on Medical Education and Hospitals on Compensation of House Officers. In so doing, it adopted the following statement: "We therefore recommend

that in view of the overwhelming opposition to the basic proposal contained in the report of the Council on Medical Service and the Council on Medical Education and Hospitals, the AMA record itself as opposed to any system or program by which any part of an intern's or resident's salary is paid out of fees collected by the attending physician or out of fees collected under any type of medical-surgical insurance coverage." Future proposals on the compensation of house officers is to be thoroughly studied by the Law Department and the Judicial Council before submission to the House of Delegates.

New Research Institute

● In acting upon two reports from the AMA Education and Research Foundation, the House approved the Foundation's announcement that it will establish and operate a new Institute for Biomedical Research. The Institute will concern itself with intensive and fundamental study of life processes as related to intracellular mechanisms.

Physicians Pension Plan

● The House approved establishment of an AMA physicians' pension plan under the provisions of the Self-Employed Individuals' Retirement Act of 1962, and noted that the Board of Trustees will make every effort to begin operation of the plan before the end of 1963. This plan will be open to all AMA members and their employees who can qualify under the Act, Public Law 87-792 (Keogh Law).

Tobacco and Disease

● The House agreed with the Board of Trustees report which concluded that the AMA should defer any definitive statement regarding the relationship of tobacco and disease at this time.

Miscellaneous Actions

● In considering a wide variety of resolutions and reports, the House also: (1) Disapproved a Judicial Council opinion on the dispensing of glasses by ophthalmologists and reaffirmed the Council's interpretation of Section 7 of the Principles of Medical Ethics, as reported in the November 15, 1958 issue of the Journal of the American Medical Association. (2) Approved a Judicial Council opinion on physician ownership of drugstores, drug repackaging houses and pharmaceutical companies. (3) Disapproved of federal funds for staffing new community mental health centers. (4) Took a position of opposing the student loan provisions of the Health Professions Educational Assistance Act of 1963. (5) Urged all state and county medical societies to adopt and activate all phases of "Operation Hometown". (6) Recommended that local medical societies in the vicinity of medical schools assume the responsibility of establishing and maintaining clear lines of communication with medical students.

Tennessee Resolutions

● The House approved Resolution 10 presented by the Tennessee Delegation supporting an amendment to the Kerr-Mills Law to permit a separate state agency to administer the MAA program. This is H.R. 4511. This resolution was approved unanimously by the AMA House of Delegates.

Resolution No. 9 by the Tennessee delegation dealing with compensation of house officers was approved by the House and AMA went on record as opposed to any system or program by which any part of an intern's or resident's salary is paid out of fees collected by the attending physician or out of fees collected under any type of medical-surgical insurance coverage.

For Your Office

● A pamphlet rack with 200 pamphlets (8 sets of 25 each) for physicians' reception rooms is available from AMA for $8.95; an order blank and details are in the May 27 AMA NEWS. Pamphlets deal with: Family Health Record, Immunizations, Accidental Poisoning, Aging, Nutrition, Quackery, Weight Control, Highway Safety, and Health Insurance.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

Sabin Oral Vaccine Programs Set

● The Nashville Academy of Medicine has set Oct. 6 as the date for beginning the three doses of Sabin oral vaccine. The second dose will be given Nov. 3 and the third dose on Dec. 8. Davidson county will be divided into 82 centers for administering the vaccine and better than 80% immunization of the county population is expected. Public relations executive James Metcalfe is the program coordinator and Dr. Herman Kaplan is chairman of the implementation committee.

Other county societies that have announced plans for conducting a Sabin program include Robertson, Knox, Franklin, Jackson, Coffee, and Williamson.

The TMA House of Delegates passed a resolution at the annual meeting in April urging all societies within the state to implement the Sabin program as soon as possible.

——0——

MAA Program (Kerr-Mills) Expanded

● Governor Frank Clement announced June 10th that the MAA program in Tennessee would be broadened effective July 1, 1963. The fourth expansion of MAA since its inception in 1961, includes more days of hospitalization, increased payments to nursing homes and a broader drug formulary.

The number of days of hospitalization for eligible MAA recipients was changed from 15 to 10 days with an additional 10 days available upon certification of a physician, making a total of 20 days. Nursing home payments were raised from a flat $80 per month to $95, $110 and $125 per month, depending upon services received. This represents an increase of as much as 56% in nursing home payments.

The OAA program was also broadened to include the same drug formulary, and nursing home payments as MAA, and was expanded to include life-endangering and sight threatening illnesses.

——0——

H.R. 3920

● Hearings in the House Ways and Means Committee on H.R. 3920, "Hospital Insurance Act of 1963", more commonly called "Medicare", will be held soon.

Efforts on the part of every physician in Tennessee is needed now to inform the public of this political fraud. The "Operation Hometown" program has begun in every congressional district of the state, but it's still up to the individual physician to carry the load. If you have not been contacted concerning "Operation Hometown" and what you can do to help, ask your county society president about it. Material for distribution to the public with the true facts on the issue are available now in any quantity needed. Put some in your waiting room and take a few extra minutes with your patients to explain what this legislation would mean to your community, quality of health care, and future doctor-patient relationships.

——0——

Rural Health and Mental Health Conferences Set

● State-wide conferences sponsored by TMA's Rural Health and Mental Health Committees have been finalized and dates set. The first annual Rural Health conference will be held in Knoxville on Oct. 9, 1963. The Tennessee Farm Bureau and

the University of Tennessee Agricultural Extension Service are co-sponsors of the conference.

The first Tennessee Congress for Mental Illness and Health will be held in Nashville on the afternoon of Nov. 13 and will continue throughout the next day, Nov. 14. The Woman's Auxiliary of TMA and the Tennessee Mental Health Association are co-sponsors of the congress. Plans call for a dinner on the evening of Nov. 13 and several well-known speakers have agreed to participate in the day and a half program.

—0—

Rep. Mills Asks for Social Security Hike

● Wilbur Mills, Chairman of the House Ways and Means Committee, has introduced a bill to raise the taxable Social Security wage base from the present $4,800 to a new $5,400. He said increased revenues are needed to strengthen the social security trust funds. The move was believed to be opposed by the Administration, which has kept mum on the unexpected development.

Mills said his bill has nothing to do with the Administration's controversial proposal for a medical hospital program under social security for the aged. However, he renewed his opposition to the scheme. And by casting doubt on the financial soundness of the social security system at present, Mills, one of the foremost experts on social security, lent strength to contentions of opponents of the King-Anderson bill that it is based on shaky financial estimates and would result eventually in staggeringly high social security taxes.

Under the bill, workers earning $5,400 a year or more would pay $21.75 a year more in taxes with their employers paying a like amount. Self-employed individuals making $5,400 a year or more would pay $32.40 more annually.

"My only intention in introducing the bill is to get the (social security) fund on an actuarial basis and to call attention to the fact that it is not actuarially sound now", Mr. Mills said.

The social security program for the past fiscal year which ended June 30 again lost money, making it five years in the red out of six.

—0—

Sen. Smathers Heads Aging Committee

● The Senate Special Committee on Aging, formerly chaired by Sen. McNamara (D., Mich.) and now under the chairmanship of Sen. Smathers (D., Fla.) announced the establishment of subcommittees on Housing, Employment, Retirement Incomes, Federal-State and Community Services, Frauds, and Health.

Senator Smathers was the main speaker June 7, 1963 at the Knoxville Academy of Medicine's annual Public Service Dinner. The affair was attended by more than 500 people.

—0—

Current in Congress

● The House Ways and Means Committee adopted an amendment to the tax law which would remove the 1% floor in deducting the cost of medicines and drugs if the taxpayer is over 65 years of age. . . . Representative A. S. Herlong, Jr., (D., Fla.) has announced publicly that he no longer is willing under any circumstances to help get the King-Anderson bill out of committee, after a recent poll of his constituents showed that most of them opposed the plan. . . .

—0—

Thought for the Week

● "I place economy among the first and most important virtues, and public debt as the greatest of dangers to be feared. To preserve our independence, we must not let our rulers load us with perpetual debt. We must make our choice between economy and liberty, or profusion and servitude. If we can prevent the government from wasting the labors of the people, under the pretense of caring for them, they will be happy."—Thomas Jefferson.

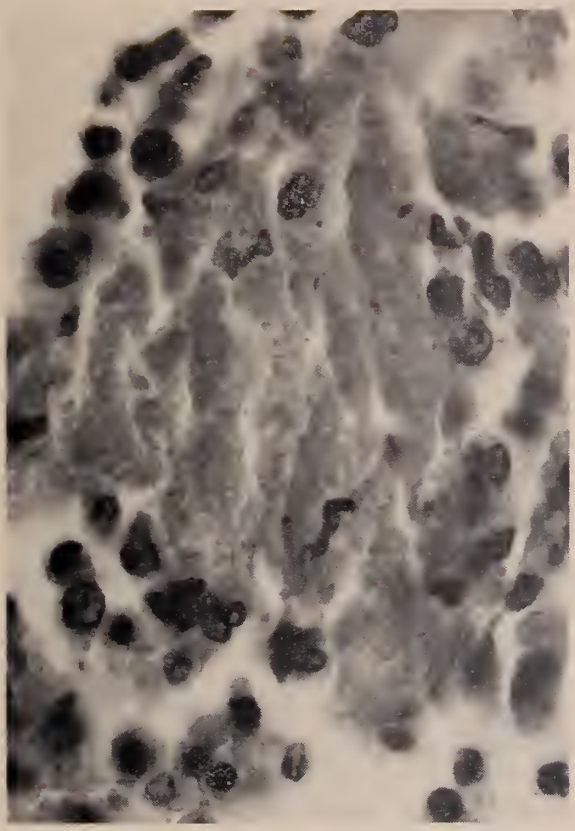


FIG. 3. Granular mass of material apparently made up of platelets and representing early lesion in myocardial vessel.



FIG. 4. Area of cortex of brain with occluded vessels and associated extravasation of red cells.

trapping of tremendous number of platelets in the occluded vessels. It is my opinion that the apparent subendothelial localization of these hyaline masses in the small vessels is accounted for on the basis of rapid proliferation of endothelium in some areas. I believe that few appreciate the ability of endothelium to proliferate and cover thrombi and the rapidity with which this may occur.

As regards the hemolytic anemia, no satisfactory explanation can be advanced on the basis of the pathologic findings. There is some erythrophagocytosis within sinusoids of lymphoid tissue and the reticuloendothelial system generally. However, this does not impress one as being of sufficient magnitude to account for the degree of hemolytic anemia which is so frequently present. For example, the kidneys in this case showed evidence of hemolytic reaction of a severe degree. In this case also, there was a remarkable compensatory hyperplasia of red cell elements.

The clinical feature of transient neurologic aberrations seems to me well accounted for on the basis of the focal lesions that I have demonstrated in the brain. Such petechial hemorrhages and thromboses within the small venules at present seem adequate in explaining the sometimes bizarre neurologic picture.

The pathogenesis of this remarkable syndrome remains obscure. On the basis of observation of autopsy cases, I cannot relate this entity directly to the so-called collagen diseases. Anatomically, there seems to be good evidence of an early and widespread, but selective, injury to the vessel walls initiating the thrombotic process. As stated above, the mechanism of the hemolytic anemia is not apparent. It is difficult to tie this whole syndrome together pathogenetically—its elucidation offers a challenge to all of those who come in contact with it.

DR. ROBERT C. HARTMANN: I recall this patient well and my original perplexity at the time of the second and terminal admission. The situation became clear only after the development of bizarre, *episodic* neurologic complications, and at that time a clinical diagnosis of thrombotic thrombocytopenic purpura was made. As Dr. Rog-

ers clearly pointed out, the combination of hemolytic anemia and thrombocytopenic purpura suggests, among other things, the possibility of disseminated lupus erythematosus. In addition, the so-called "Evan's Syndrome" (i.e., autoimmune hemolytic anemia with thrombocytopenia) was originally considered as a diagnostic possibility until the Coombs test was found to be negative. Currently the features of thrombotic thrombocytopenic purpura are summarized in a *diagnostic quintad:* hemolytic anemia, thrombocytopenic purpura, bizarre, *episodic* neurological involvement, fever and evidence of renal involvement.

Recently there has been considerable interest in a similar disorder occurring in infants and young children ("Hemolytic-Uremic Syndrome of Infancy") in at least some of which "platelet thrombi" typical of those seen in thrombotic thrombocytopenic purpura have been found on postmortem examination. In children the renal involvement seems to be more severe. On the other hand, recent reports suggest that outlook for recovery may be somewhat better in these children.

Although an occasional case of thrombotic thrombocytopenic purpura has had a positive L.E. cell preparation or autopsy evidence of disseminated lupus erythematosus, in the vast majority L.E. cell tests have been negative and there has been no evidence of disseminated lupus erythematosus. At present for practical purposes thrombotic thrombocytopenic purpura can be considered a separate disorder.

The episode of confusion and irrational behavior which occurred two years prior to onset of typical thrombotic thrombocytopenic purpura deserves special comment. Similar observations have been made by others suggesting that in some instances the prodromata of thrombotic thrombocytopenic purpura may extend over a long period.[1,2] Nevertheless, once the full-blown clinical picture consisting of the *diagnostic quintad* develops, the disorder has usually been rapidly fatal.

On the whole, treatment has been disappointing. Small amounts of ACTH and adrenal cortico steroids have been to no avail. Splenectomy has been associated with prolonged remission in only a few cases. Small amounts of nitrogen mustards were used in the present case in a desperate but futile attempt to save this patient. This treatment was used because of an alleged, superficial resemblance between "platelet thrombi" and the lesions of the Shwartzman reaction, and because nitrogen mustards can block the latter in experimental animals.

We have two patients who are now in complete remission for greater than six and eight years respectively following initial treatment of fulminating thrombotic thrombocytopenic purpura with *large* amounts of adreno-cortical steroid drugs for several months.

(2) In a recent Vanderbilt case improvement occurred on a similar regimen, but the patient then died of a complicating acute myocardial infarction. While it is impossible to prove that steroids directly brought about these remissions, the *early* use of *large* amounts of steroids is recommended since such may at least prevent certain cases from progressing to a fulminant downhill course. Despite some earlier failures, the use of heparin in small amounts was successful in one patient and now has its advocates.[3]

References

1. Cahalane, S. F. and Horn, R. C., Jr.: Thrombotic Thrombocytopenic Purpura of Long Duration, Amer J Med 27:333, 1959.

2. Burke, H. A., Jr. and Hartmann, R. C.: Thrombotic Thrombocytopenic Purpura. Two Patients With Remission Associated With the Use of Large Amounts of Steroids, AMA Arch Int Med 103:105, 1959.

3. Bernstock, L. and Hirson, C.: Thrombotic Thrombocytopenic Purpura. Remission on Treatment With Heparin, Lancet 1:28, 1960.

President's Page



DR. CANNON

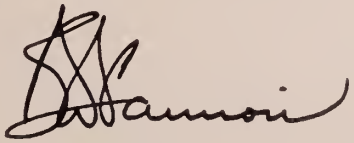
"Keep your pen dry and your mouth closed until you know the facts," is the doctrine followed during the past months. Some of the news media of our State have an all-out campaign to distort facts while hiding behind a billboard painted with slogans as "honest and just," as "fair and accurate." It is doubtful if the fire of their deceit will spread. The more avid their attempts, the more obvious their distortion.

TMA members should be apprised of two significant meetings during the past month. Dr. W. O. Vaughan, Chairman of the Consultative Committee to the Governor, had outlined four recommendations for expansion of the Medical Assistance to the Aged Program in a letter to the Governor in February, 1963. At a hurriedly summoned meeting with key Commissioners of the State Administration, all of the recommendations excepting one were enacted. The omission however was significant for it failed to raise the economic limitations on the MAA program to $1,300 for single persons and $1,800 for married persons, 65 and over. The opinion of the Welfare Department of the State was that the rapidly growing program could not risk such an expansion at this time, but continuing re-evaluation every six months was more feasible, and to thus proceed with changes until the program is fully implemented to comply with the needs of the aged in the field of medical care.

An out-of-context quote from the Commissioner of Public Welfare gave some fuel to our critics' fire and necessitated the second meeting on June 27th. A meeting with the Governor reassured your President that he believed that the Kerr-Mills Program is workable and he intends to see it more effectively implemented in Tennessee. This statement was the same as the one he made prior to election. He has not changed his commitment and has demonstrated his interest by continually requesting Medicine's assistance and advice in the expansion of the MAA program.

I pass on to the membership the assurance that I received from the Governor. He has reaffirmed his commitment to the Kerr-Mills Law and to the program for medical care of the aged.

TMA's Consultative Committee to the Governor will continue to work closely with the State Administration. The Governor has agreed that discussion on further expansion of the MAA program can be considered within three months and these discussions should occur by October 1st.



President

THE JOURNAL
OF THE
TENNESSEE MEDICAL ASSOCIATION
Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor, B-4211 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK AND POST GRADUATE EDUCATION
R. H. KAMPMEIER, M.D., Chairman
W. POWELL HUTCHERSON, M.D., Chattanooga
ROBERT P. MCBURNEY, M.D., Memphis
EUGENE J. SPIOTTA, M.D., Memphis
(Specialty Society Representatives to be named)

JULY, 1963

EDITORIAL

PATIENT CARE

Seldom does an article appearing in a popular magazine deserve as serious consideration by both physicians and laymen as "Sick People Need Care, Not Research" by Louis J. Vorhaus. The author emphasizes the need for reorienting our thinking about medical education and the importance of reaching a more sensible balance between medical research on one hand and medical care on the other.

The frontiers of research have been expanded so rapidly that utilization of knowledge already available lags decades or even longer after discovery. There is a tendency for Americans, in particular, to support research on diseases affecting only a few people. For every case of multiple sclerosis or cystic fibrosis there are hundreds or thousands suffering from dysentery, hookworm and trachoma. With the money spent in studying muscular dystrophy we could help thousands disabled by malnutrition, infectious diseases and improperly treated wounds.

Even in the United States, certain areas away from university-style medical centers are deprived of information, techniques and treatments to combat diseases. However, even in urban centers medical care of the highest quality sometimes is beyond the unfortunate patient who is not farsighted enough to develop an "interesting" disease.

There is a shortage of hospital beds in this country which, especially in teaching hospitals, seems to limit admissions of patients with common-place disorders. We are told that there is a shortage of doctors and that we need many additional physicians. There is certainly no doubt that we need and could use more doctors but the present shortage is more apparent than real. There has been an increase of about 100,000 physicians in the past 30 years so that there now is a physician for every 700 people. However other changes have occurred at the same time. The percentage of doctors engaged in the full-time practice of a specialty more than doubled, as did the percentage engaged in hospital service, teaching and administration. Meanwhile, the percentage of physicians in general practice dropped from 77.7% to 34.8%, an actual loss of over 32,000 general practitioners. There can be no doubt that emphasis in the medical profession has shifted away from treating the everyday illnesses of ordinary people to the glamorous field of specialization and, particularly, of medical research.

The responsibility for this shift must be laid at the doorsteps of the nation's medical schools and university hospitals. Over the years the university medical centers have gradually abdicated their time-honored functions as clinical centers for ministering to the sick and training medical students. Instead they have become medical scientific research institutes, consequently deemphasizing the ordinary problems of medical care.

As interest in scientific medicine grows, devotion to people, sick with ordinary and unexciting disease, wanes. This lack of concern for the commonplace illnesses affects both the patient and the young physi-

cian. The former is involved because unless he is fortunate enough to have a rare disease, he may not be admitted to a hospital having a bed shortage. The young physician in training is thus deprived of clinical experience similar to that which will constitute the bulk of his practice on completion of his residency.

What has produced this trend toward medical research and specialization? Why has the laboratory superceded the ward as the focal point of activity in the university medical center? Why do patients become "cases" to study? The explanation lies in the increasing costs of medical education and the only practical method now available for financing it. Vorhaus says that one leading medical school received 22% of its income from tuition in 1936. In 1961, despite tripling of its tuition, this only represented 6% of its income. During the same 25 years income from research grants had risen from $139,078 to $4,359,656. Without these funds the school simply could not operate.

The amount of money available in the form of grants for medical research from the Federal Government and private sources is enormous. To make sure that it receives its just share, the teaching hospital obviously must increasingly emphasize its research activities. The result is predictable: more "scientific medicine" and less patient care; more physicians working in the laboratory, fewer in the wards; more emphasis on biochemistry, less on practice.

Surely an answer to this dilemma must be found. Medical research must continue and must be financed adequately to lure the persons best qualified to chart the course through the haze and mists of medical unknowns. University medical centers and teaching hospitals must also be financed adequately so that training young physicians in patient care and not research will be their responsibility. Of necessity, some research activities must be centered in the medical school and its associated hospitals, but the medical school must never forget its "raison d'être" is to train young physicians to give superb care to sick patients.

A. B. S.

Vorhaus, Louis J.: Sick People Need Care, Not Research, *The Saturday Evening Post*, May 11, 1963.

CONFERENCE ON DRUG SAFETY

Last fall, Klumpp[1] said, "We have just been witness to one of the most extraordinary, amazing and hysterical phenomena in American political history. It began about three years ago when Senator Kefauver announced that drug prices were too high and proceeded to investigate the pharmaceutical industry."

Then in the summer of 1962 came the explosion about thalidomide and deformed babies, and Dr. Frances Kelsey received the President's medal for distinguished government service after the drug was declared unfit for importation into this country. (Its effects were known in Germany and Great Britain many months before, and were well known to scientists in this country a number of months before it received official recognition and newspaper publicity.) As a result Public Law 87-781 was enacted in October 1962. This spells out certain restrictions relative to the use of "new" drugs, and provides for the control of marketing and advertising of drugs by pharmaceutical industries. Research and clinical investigation of drugs and their use in human beings are to be controlled by regulations to be established by the Food and Drug Administration (FDA).

Shortly after this became law the Commission on Drug Safety was set up through a grant by the Pharmaceutical Manufacturers Association under a charter to "recommend means for expansion of scientific knowledge of the predictability of action of drugs in man." The Chairman of the Commission is Dr. Lowell T. Coggeshall, Vice-President of the University of Chicago. Its membership includes a half dozen well known men in academic medicine (deans and scientific investigators), Dr. Hugh Hussey, Director of the Division of Scientific Activities of the A.M.A., and a half dozen physicians who are officers of pharmaceutical houses. The Commission quickly appointed 17 committees including a total of 150 nationally recognized authorities as members, to investigate specific areas dealing with research, genetics, legislation and the responsibilities of medicine, medical schools, government, and industry.

[1]Klumpp, Theodore G.: The Drug Amendments of 1962, Rocky Mountain Med. J. 59:25, 1962.

On June 27-28, the Commission on Drug Safety held a Conference of Professional and Scientific Societies, to which were invited representatives of 20 scientific and professional societies—13 were societies whose membership is basically clinical or professional and whose representatives in a panel discussion considered drug safety and the impact of FDA regulations on clinical trial and drug testing. Another panel of representatives of 7 more or less research oriented societies considered the impact of drug regulations on research. Eleven formal presentations were given in addition to the panel sessions, followed by much lively discussion. The viewpoints from representatives of the FDA, medicine, pharmacologic research and the pharmaceutical industry were heard.

After listening to the discussions of two days and talking with individuals I would say that most everyone was discouraged and pessimistic with regard to the effect of Food and Drug Administration's attitude and regulations upon research, investigational use of new drugs, and the development of new drugs by pharmaceutical houses. The scientific community anticipates and fears bureaucratic control as the practitioner has now for some time. Though the eventual effect on basic research and clinical investigation is not predictable as yet, there seems already an apparent "slowdown" in the release of new drugs for trial, and a tentative refusal of certain investigators to go on with pharmacologic research and a turning of their attention to other studies.

Repeatedly these pages have pointed to the havoc that laymen and politicians can play when putting a finger into something they know little about—the practice of medicine. At this Conference it was brought out time and again that the protocols for research and the results of investigation would probably be scrutinized by an unknowledgeable and inadequate staff of bureaucrats—neither scientists nor physicians.

May we face not only controlled practice of medicine but also controlled medical research! Who suffers—obviously the patient and so the public!

R. H. K.

DEATHS

Dr. Edgar L. Grubb, 60, Knoxville, died May 27th at Presbyterian Hospital.

Dr. German P. Haymore, 86, Chattanooga, died May 19th in a Chattanooga Hospital.

Dr. John Clinton Mobley, 90, Memphis, died May 24th at Cage Nursing Home in Memphis.

Dr. Lewis Ruben Gayden, Sr., 62, Montgomery, Alabama, former Nashville physician, died June 8th in a Montgomery Hospital.

Dr. Claude Preston Martin, 85, Cookeville, died June 19th in a Nashville hospital following a long illness.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Knoxville Academy of Medicine

The regular monthly meeting of the Knoxville Academy of Medicine was held on June 11th in the auditorium of the Academy of Medicine. The scientific program was given by Dr. C. C. Lushbaugh, Visiting Scientist, ORINS Medical Division, Oak Ridge. His subject was "Diagnostic Uses of a Whole Body Counting Facility." Dr. Lushbaugh is from Los Alamos and has recently joined the ORINS group as a visiting scientist.

On June 7th at the Civic Coliseum, Senator George Smathers (D., Fla.) delivered the Knoxville Academy of Medicine's annual "public service dinner" program. The Senator's speech covered a wide range of political issues including Medicare.

Memphis-Shelby County Medical Society

The Society met in the auditorium of the Institute of Pathology on June 4th. The scientific program was sponsored by the staff of Kennedy VA Hospital. Dr. J. J. McCaughan, Jr. gave a paper entitled, "Venous Thrombectomy for Massive Deep Occlusion of the Lower Extremity," and Dr. Ralph F. Bowers' presentation was entitled, "Need for Different Definitive Operative Procedures for Peptic Ulcer."

A meeting of the House of Delegates of the Society followed the scientific program.

Consolidated Medical Assembly of West Tennessee

The Consolidated Medical Assembly of

West Tennessee held its regular monthly meeting on June 4th in the New Southern Hotel in Jackson. The scientific program entitled, "Surgical Repair of Torn Ankle Ligaments" was given by Dr. Robert Smith. The House of Delegates meeting was held in conjunction with the scientific session.

Roane-Anderson County Medical Society

The Society's regular meeting was held on June 25th in the Oak Ridge Hospital. The meeting was preceded by a dinner at 7:30 P.M. The scientific program consisted of a paper entitled "Cervical Carcinoma and Related Cytologic Studies" by Dr. Albert W. Diddle, Knoxville.

NATIONAL NEWS

The Month in Washington
(From the Washington Office, AMA)

Chairman Wilbur D. Mills (D., Ark.) of the House Ways and Means Committee has made clear that he still opposes the Kennedy Administration's legislation that would provide social security hospitalization for aged persons.

Mills said he did not intend to permit a social security bill he introduced to be used as a vehicle for Congressional action on any version of President Kennedy's disputed program.

The Mills bill would make the first $5,400 in annual earnings subject to the social security tax. It is $4,800 now. Kennedy's social security hospitalization bill would increase the tax base to $5,200.

The objective of the Mills bill is to strengthen the social security trust fund's financing by eliminating most of the long-range deficit now in prospect.

"My only intention in introducing the bill is to get the fund on an actuarially sound basis and to call attention to the fact that it is not actuarially sound now," Mills said.

"I assume everybody knows that I do not support the enactment of medicare under the social security program."

Another Democrat on the Ways and Means Committee, Rep. A. Sidney Herlong, Jr. of Florida, also expressed strong opposition recently to the Kennedy legislation, known as the King-Anderson bill, or any other plan to finance health care through social security.

This position by Mills and Herlong made it unlikely that the Ways and Means Committee, where such legislation normally is acted upon first in Congress, would approve any health care plan financed through social security.

However, supporters of the King-Anderson bill could try to attach it as a rider to another social security bill on the Senate floor. This was the maneuver they attempted—unsuccessfully—last year.

★

The Senate has approved the Kennedy Administration's $848.5 million mental health bill by a vote of 72 to 1. Its sponsors were confident of House passage also.

The American Medical Association had testified in support of the legislation when it was before the Senate Labor and Public Welfare Committee.

The bill would provide:

—A four-year program, costing $230,000,000, under which Federal grants would go to states for construction of public or other nonprofit community mental health centers. Funds would be allocated on the basis of population and need.

—An eight-year program, costing $427,000,000, of Federal grants to states for staffing of these mental health centers. Federal aid would gradually decrease and eventually would be cut off.

—A five-year program, costing $30,000,000, of Federal grants to public or other nonprofit institutions for construction of research centers and facilities for the mentally retarded.

—A five-year program, costing $42,500,000, of Federal grants for constructing college or university facilities to offer services to the mentally retarded and training for persons dealing with the retarded.

—A four-year program, costing $67,500,000, of Federal grants to states for constructing facilities for the mentally retarded. Funds would be allocated on the basis of population and need.

—A three-year program, costing $45,500,000, for training of teachers of the mentally retarded, deaf, emotionally disturbed, crip-

pled and other handicapped children.

—A three-year program of research and demonstration projects in education of the handicapped.

★

The National Cancer Institute says that research strongly suggests viruses cause cancers in humans.

Reviewing medical research in the past year before a House budget subcommittee, a National Institute of Health official said:

"The scientific evidence accumulated over a number of years, and particularly in the last half-dozen years, has demonstrated that viruses cause many forms of cancer in animals under experimental conditions. . .

"The large volume of such evidence, coming from a wide variety of scientific disciplines, is so strongly suggestive of a virus-cancer relationship in man that the National Cancer Institute has given active encouragement to research in this area. To date, no human cancer-causing virus has been found. However, we know for example of a group of human viruses that have not yet been linked with specific disease, and some animal viruses that cause bizarre changes in human cells growing in tissue culture. . .

"The present state of knowledge leaves no doubt in our minds that viruses must be studied not only as a single possible cause of cancer in man, but in the whole context of carcinogenesis. The possible interaction of substances in the total environment—such as radiation, chemicals, and viruses—in giving rise to cancer in the population must be taken into account. Already there is laboratory evidence that this can occur in animals."

Dr. Kenneth M. Endicott, Director of the National Cancer Institute, told the subcommittee that "there is no doubt left in my mind that there is very strong association between excessive smoking and high incidence of cancer of the lung."

Endicott said it appeared people would persist in smoking despite medical findings and legislative action. For this reason, Endicott said, research is being conducted to eliminate any cancer-causing factors or to counter them by adding chemicals.

"I think one of the really fascinating problems, a social problem more than a medical one, is what do you do about a situation of this kind?" the physician said.

The Public Health Service Surgeon General's Committee on Smoking and Health delayed until early next year a report dealing with smoking and health evidence. The group originally was supposed to have issued its initial report by this summer but the members found they could not accomplish the research at this time.

AMA Annual Meeting

The American Medical Association conducted its 112th annual meeting in Atlantic City, June 16-20. Four separate activities made up the meeting. They were: Scientific program of lectures, discussions, medical films, and closed circuit television . . . . Scientific and industrial exhibits . . . . Biannual session of AMA's policy-making House of Delegates . . . . The Woman's Auxiliary to AMA meeting.

The medicine and religion program was presented by the newly formed Committee on Medicine and Religion. Featured speakers were Dr. Edward Rynearson of Mayo Clinic, Rochester, Minnesota, and The Most Reverend Fulton J. Sheen, New York City.

Dr. Edward R. Annis, Miami, Florida, was inaugurated as the 117th President of the AMA.

Dr. John B. Youmans Receives Goldberger Award

An item of interest to Tennesseans was the presentation of the Goldberger Award and its accompanying cash stipend by the AMA Council on Foods and Nutrition to Dr. John B. Youmans of Nashville. Long and well-known by the doctors of Tennessee as a teacher of undergraduate and many post-graduate students at Vanderbilt University School of Medicine, of which he was Dean for some eight years before his retirement, attention only need be directed to his contributions in nutrition. He was on the AMA Council on Foods and Nutrition for many years, and for two years was head of the Scientific Activities of the AMA. The recipient of the award was one of a handful of clinicians who became interested in nutrition more than thirty years ago, and as appeared in the AMA citation, "It is almost impossible to find any present-day worker in nutrition who has not studied with Dr. Youmans or has not been significantly in-

fluenced by him in their career." He has written extensively in the area of nutrition, served on the Rockefeller Commission to unoccupied France in 1940-41, and as Colonel in the U.S. Army and in the Surgeon-General's office was responsible for nutrition for the Army during the War. He continues as Consultant to the Interdepartmental Committee on Nutrition for National Defense. Currently he is president of the United Health Foundations.

MEDICAL NEWS IN TENNESSEE

Kerr-Mills Program in Tennessee Further Expanded

Through continued efforts by TMA, the fourth expansion of the Kerr-Mills Program in Tennessee became effective on July 1st. The State of Tennessee through its Public Welfare Department, approved the following expansion in the Medical Assistance to the Aged Program. The expansion includes an increased drug formulary to allow a wider choice of drugs to treat conditions and diseases that are already being treated under the program.

In addition, the number of days of hospitalization was increased to twenty with ten days as a minimum and an additional ten days available upon the recommendation of a physician.

Nursing home payments based on standard service was increased from the present $80 limit to a minimum of $95 and a maximum of $125, depending on the services rendered. Supplements to nursing home payments by members of the patient's family may be added to state payments.

Nursing homes will be classified into three categories under the following conditions:

1. Class I—State payments of $95 per month with allowable supplements up to $150.
2. Class II—State payments of $110 per month with supplements to $175.
3. Class III—State payments of $125 per month with supplements allowable up to $200.

The expansion will give a more complete program of health care to persons 65 years of age and older in Tennessee.

The Consultative Committee to the Governor, a committee of physicians of TMA working closely with the Governor and State officials, has been exerting constant efforts upon the State Administration for expansion of the Medical Assistance to the Aged Program. Physicians of Tennessee will continue this work for a better and more complete program for the aged citizens in Tennessee.

The Old Age Assistance Program was also expanded to include life endangering and sight threatening illnesses. The revision in this program will also provide for the same drug formulary for old age assistance recipients as that received by Medical Assistance to the Aged recipients. Nursing home payments were approved on the same basis as contained in the Medical Assistance to the Aged Program.

Mass Immunization Programs

A number of Tennessee metropolitan areas and counties are planning mass immunization programs using Sabin Oral Vaccine. These programs are planned for the fall months. Coffee County (Tullahoma and Manchester), Davidson County (Nashville Metropolitan Area), and Jackson are planning such polio immunization programs. Other areas of the state are likewise planning to present the mass immunization programs, however, plans are not yet completed.

Meharry Medical College

Dr. Rupert E. Billingham, a member of the Wister Institute of Anatomy and Biology and professor of zoology at the University of Pennsylvania, lectured recently at Meharry Medical College.

Vanderbilt University School of Medicine

A $250,000 grant has been received to augment the salaries of teachers at the medical school. The grant is from the Richard King Mellon Charitable Trusts. Dr. Randolph Batson, Dean, announced that the gift was a great contribution to academic medicine, for it will strengthen substantially the undergraduate teaching program.

★

The National Institute of Health has made a grant which provides for a mass attack on some of the problems of medical science. The grant is made under the USPHS and is valued at approximately $300,000 a year to run for seven years. The

grant which pays for work to be done in the field of circulatory physiology, varies from most awards made by the Institute in that it calls for research by several physicians on a broad front, rather than for individual projects.

★

Three officials of the School have investigated the possibilities of establishing a relationship for research activities between Vanderbilt and the United Arab Republic. Dr. Randolph Batson, Dean, stated that a team, headed by him, will look over all medical schools and institutes in the UAR, to select the best one with which Vanderbilt faculty members could conduct research in all areas of health studies.

★

Announcement of promotions for the following has been made: Edwin B. Bridgeforth to associate professor of biostatistics; William J. Cheatham, to associate professor of pathology; Harold A. Collins, to associate professor of surgery; Lloyd H. Ramsey, to associate professor of medicine; and Harry S. Shelley, associate professor of urology.

University of Tennessee College of Medicine

Research and training grants totaling $446,960 have been awarded Dr. Donald B. Zilversmit, professor of physiology. The research grant will provide seven additional years of support for the physiologist who is studying the mechanisms by which fatty materials, such as cholesterol, are deposited in the arteries of animals kept on special diets which produce atherosclerosis. The training grant for five years, provides for training of post-doctoral fellows, doctors of medicine or doctors of philosophy in the basic medical sciences.

★

The National Heart Institute of the USPHS awarded a $205,000 post-doctoral training grant to Dr. James N. Etteldorf, professor of pediatrics, to provide additional study for physicians in cardiovascular and related conditions such as kidney, metabolic and endocrine and hematologic disorders.

The College's training program in pediatric cardiology has been approved by the sub-board of Cardiology of the American Board of Pediatrics.

★

Dr. Russell L. Cecil, consulting medical director of the Arthritis and Rheumatism Foundation, was a recent guest speaker at the University of Tennessee Hospital Auditorium in Knoxville. The meeting was sponsored by the Knox County Chapter of the Foundation.

★

Drs. William White Walker, Jr., Charles P. DeMinico, and David Moore, psychiatrists, assumed full-time duties on the staff of the Department of Psychiatry on July 1st.

★

Dr. Lewis Anderson, assistant professor of orthopedic surgery, has been awarded $60,000 by the Institute of Arthritis and Metabolic Diseases for a four-year study. Dr. Anderson is conducting research on the causes of nonunion of bones, following fractures.

★

The University's Board of Trustees has allotted $4,046,353 to the campus for use in construction of the new medical research hospital and the purchase of additional land for future expansion.

Southeastern Society of Plastic and Reconstructive Surgeons

The Society held its annual meeting, June 13-15 at the Peabody Hotel in Memphis. Guest speakers included: Dr. Robert Ryan, New Orleans; Dr. Erle E. Peacock, Jr., Chapel Hill, North Carolina; Dr. Hugh H. Crawford, Norfolk, Virginia; Dr. Richard W. Vincent, New Orleans; Dr. Claude C. Coleman, Jr., Dr. John E. Hoopes, Dr. Willcox Ruffin and Dr. A. A. Khuri, all of Charlottesville, Virginia. Topics covered various types of reconstructive surgery.

Dr. McCarthy DeMere, Memphis, was named President of the Society and will assume office in 1964.

Upper Cumberland Medical Society

The Upper Cumberland Medical Society met June 18-19 at the Cloyd Hotel in Red Boiling Springs for its 69th annual session, under the presidency of Dr. Kirkland Todd, Nashville.

Elected as President of the Society was Dr. Crawford Adams, Nashville. Dr. William Hensley, Cookeville, was named President-elect. Other officers include: Dr. W. P. Hutchinson, Chattanooga, Vice-President; Dr. L. M. Freeman, Granville, Secretary; and Dr. Kirkland Todd, Nashville, Assistant Secretary.

Memphis Surgical Society

Dr. Harris B. Shumacker, Jr., professor of surgery at the University of Indiana in Indianapolis, was the guest speaker at a meeting of the Memphis Surgical Society in May. The meeting was held at the University Club.

Upper East Tennessee Pediatric Association

Dr. Sidney S. Whitaker, Jr., Bristol, has been elected Vice-President of the Upper East Tennessee Pediatric Association. Dr. Whitaker succeeds Dr. C. J. Duby who assumed the Presidency. The Society is composed of pediatricians from the area of Maryville, Knoxville, Oak Ridge and Bristol.

PERSONAL NEWS

The American College of Chest Physicians conferred the degree of Master, College of Chest Physicians upon **Dr. Hollis E. Johnson,** Nashville, at the recent meeting in Atlantic City. At this meeting **Dr. Crawford W. Adams,** Nashville, was elected one of the Regents of the College of Chest Physicians.

Dr. Greer Ricketson, Nashville, has been installed as President of the Middle Tennessee Medical Association. **Dr. Arnold M. Meirowsky,** Nashville, was re-elected secretary.

Tennessee physicians receiving certificates from the American Board of Obstetrics and Gynecology are: **Dr. Samuel S. Binder,** Chattanooga; **Dr. Orrin L. Jones, Jr.,** Nashville; **Dr. James B. Millis,** Donelson; **Dr. John H. Moore, III,** Kingsport; **Dr. Paul D. Mozley,** Memphis; and **Dr. Charles S. Scott,** Morristown.

Dr. Samuel L. Raines, Memphis, was recently installed as President of the American Urological Association in St. Louis.

Dr. Jack M. Roe, Livingston, is now associated with the Nevins, Qualls, Roe Clinic in Livingston.

Dr. C. H. Alper, Chattanooga, has been invited to attend the British Academy Conference on Otolaryngology in London, after which he will participate in seminars in Copenhagen, Zurich, Paris, Naples and Rome.

Dr. Walter K. Hoffman, Memphis, has been named President of the Tennessee Heart Association. **Dr. Walter McLeod,** Johnson City, has been named President-Elect and **Dr. E. P. Muncy,** Jefferson City, secretary.

Dr. Fount Russell, Clarksville, recently addressed the Civitan Club in Clarksville.

Dr. Harwell Wilson, Memphis, was named President-Elect of the Society for Surgery of the Alimentary Tract at the annual meeting in Atlantic City.

Dr. Kenneth Ross, Clarksville, is the new chief of staff at Henry County General Hospital. He succeeded Dr. W. G. Rhea.

Dr Arthur K. Husband, Crossville, has accepted the position of clinical director at Greene Valley Hospital in Johnson City.

Dr. Robert N. Buchanan, Jr., Nashville, has assumed the Presidency of the Vanderbilt University Alumni Association.

Dr. Harwell Murrey, Lewisburg, has joined **Drs. Robert Agee** and **K. M. Kressenberg** in the practice of medicine in Pulaski.

Dr. John J. Lentz, Nashville, a former winner of TMA's Outstanding Physician Award, will retire on July 1st, 1964, as Nashville's Metropolitan Public Health Director.

Dr. W. B. Acree, Ridgely, **Dr. Robert H. Henley,** Tiptonville, **Dr. James S. Ruffin, Jr.,** Covington, and **Dr. Tom C. Wood,** Paris, have been named members of the Board of Directors of the West Tennessee Heart Association at a recent meeting conducted in Jackson. Other officers of the organization include **Dr. Lamb B. Myhr,** Jackson, Past President; **Dr. Blair D. Erb,** Jackson, President-elect; and **Dr. R. David Taylor,** Dyersburg, who was installed as President.

Dr. A. H. Tuttle, Memphis, recently addressed the Upper East Tennessee Pediatric Association in Gatlinburg

Physicians participating in the Fifteenth Annual Health Institute in Chattanooga included: **Dr. Maurice S. Rawlings, Dr. I. Lee Arnold, Dr. Marion M. Young** and **Dr. L. Spires Whitaker.**

Dr. J. James Dodds, Chattanooga, has been accepted as a Diplomate in the American Board of Surgery.

Three Memphis pathologists have been named Diplomates of the American Board of Pathology. They are: **Dr. Jerry T. Francisco, Dr. Cyrus C. Farrow, Jr.** and **Dr. Marvin E. Johnson.**

Dr. Homer F. Marsh, Memphis, vice president in charge of the Medical Units of the University of Tennessee, has been presented a distinguished Alumni Award by the Indiana State College.

Dr. Tom E. Nesbitt, Nashville, was a recent speaker before the Nashville Civitan Club. His subject was "Medicare."

Dr. Ben Hall, Johnson City, was elected Presi-

dent of the Appalachian Heart Chapter. He succeeded **Dr. Lyman A. Fulton**, Johnson City. **Dr. John S. Powers, Jr.**, Kingsport, was elected Chairman of the Board and **Dr. Julian Early**, Bristol, was named President-Elect. **Dr. Julian Williams**, Kingsport, was elected Vice President.

Dr. Minyard D. Ingram, Trenton, Director of the Gibson County Health Department, was recently honored for his fifty years of service to medicine.

Dr. Richard B. Willingham, Knoxville, has been elected President of the Knox County Tuberculosis and Health Association.

Dr. A. Roy Tyrer, Jr., Memphis, is on a round-the-world trip to survey medical centers in Vietnam, Malaya, India, Pakistan and Egypt for the purpose of setting up volunteer neurological rehabilitation projects.

Physicians presenting papers before the recent meeting of the Tennessee Heart Association in Chattanooga were: **Dr. E. Converse Pierce II** of Knoxville, **Dr. James Pate** of Memphis, and **Dr. Crawford W. Adams**, Nashville.

Dr. Halden Hooper, Dickson, has been elected "Lion of the Year" by the Dickson Lions Club.

Dr. Fred Hooper, Harriman, recently spoke before the student body of the South Harriman High School on the subject "Effects Smoking Has on Lung Cancer."

Dr. W. J. Cameron, Sweetwater, has announced his retirement from private practice.

Dr. Thomas N. Stern, Memphis, has assumed the Presidency of the Memphis Heart Association. He succeeds **Dr. James W. Culbertson.** Other officers elected were: **Dr. Robert G. Allen**, President-elect; **Dr. Burt Friedman**, vice president; and **Dr. J. Warren Kyle**, parliamentarian.

Dr. Charles W. Davis, Humboldt, has been elected President of the Medical Staff of St. Mary's Hospital. Other officers are: **Dr. William H. Roberts**, Vice President, and **Dr. Albert H. Fick**, Secretary.

Dr. Truett H. Pierce, Sneedville, has been selected the "Outstanding Young Man of the Year" by the Sneedville Junior Chamber of Commerce.

Dr. John H. Saffold, Knoxville, is the new President-Elect of the East Tennessee Heart Association. **Dr. Jacob T. Bradsher, Jr.** has been installed as the organization's 15th President.

Dr. Walter J. Lee, Knoxville, has been named full-time director of the Department of Physical Medicine and Rehabilitation at Baptist Hospital.

Dr. W. Powell Hutcherson, Chattanooga, recently presented two papers concerning cancer before the Alabama Association of Obstetricians and Gynecologists.

Dr. Elgin P. Kinter, Maryville, recently addressed the Knoxville group of the American Society of Medical Technologists.



Dr. R. H. Kampmeier, Editor
Journal of the T.S.M.A.
Vanderbilt University
Nashville 4, Tennessee
Dear Dr. Kampmeier:

This letter is being addressed to you and a copy is being forwarded to the author of the Special Item which appeared on page 111 of the March issue of the Journal of the TSMA, to take exception to a statement made by our President-Elect of the TSMA in an address to the House of Delegates. Dr. Cannon states, in part, "there is an increasing deficit of physicians." He goes on to state, in order "to make yourself aware of this shortage, you can look to your present locale. The utilization of foreign interns and residents in your programs is evident because of insufficient numbers of graduates to fulfill opportunities and needs in these institutions."

It is my firm conviction that there is no shortage of physicians now nor will there be one in the foreseeable future. First let me say, in order for one to say there is or there will be a shortage of physicians, he is implying that patients are going without medical care because there is no doctor available or doctors in general are so overworked that patients cannot receive adequate care. Now, neither of those two conditions is true in the State of Tennessee and, I doubt, the country over. Yes, some patients may not be able to locate a doctor immediately and some doctors may be overworked. Yes, Podunk no longer has a doctor, since old Doc died, but ten miles away on a big highway Big City has plenty of doctors.

It is somewhat irksome to read and hear so-called medical experts say there is a shortage of doctors, because hospitals are being forced to hire foreign interns and residents. Since when have our medical needs been determined by the supply of interns and residents? Many of these experts fail to realize that many institutions were granted approval for intern and residency training programs shortly after World War II, because of returning soldier doctors who were desirous of more training. Today, if the accrediting organizations were to scrutinize their programs more closely, many of these hospitals would not be approved. (I know personally of intern and residency programs which make one wonder about the value of their programs.)

It seems to me, to say "there is a shortage of doctors today because there are fewer doctors per thousand population today compared to that ratio in 1925" would make some sense. However, I believe a doctor today can care for twice as many patients as did the doctor of 1925.

The basis of some of my argument can be found in an article in the JAMA, September 16, 1961. It is written by a Dr. Jacob P. Meerman of the Department of Economic Research of the American Medical Association. As Dr. Meerman points out, many of the facts concerning a shortage of doctors was derived from a report in October 1959 from the Department of Health, Education, and Welfare based entirely upon physician-population ratios of years ago, today, and the predicted future.

Such irresponsible statements concerning a shortage of physicians only adds oil to the fire of government medicine. I believe they should be refuted. To quote, we must "be careful not to confuse truth with opinions colored by smallness or prejudices."

Sincerely yours,
W. Edward French, M.D.
April 10, 1963. Memphis, Tenn.

The writer unquestionably is correct in indicating that the doctor of today can care for, and more efficiently, more patients than a generation ago when much time was spent making home calls. Good roads make for greater ease in patients consulting the city doctor. It is common knowledge that intern and residency programs are under study at the moment.

One cannot be certain, however, that there is no "shortage of physicians" nor that there will be such "in the foreseeable future." The results of a careful study made by the Council on Education and Hospitals of the AMA has been published recently entitled "Money and Medical Schools" and may be obtained from the AMA. The Council on Medical Education and Hospitals accepts the Bane Report of 1959 as a basis for discussion, recognizing that there will be a need for an increased number of physicians in the coming years. In discussing this report it was acknowledged that, "These estimates were based on three major assumptions: (1) that the rate of population growth would continue at the 1955-57 rate, with the U. S. population reaching about 235 million by 1975, (2) that the patterns of provision of medical services and the utilization of physicians will change only slowly, if at all, so that the existing ratio of physicians/population is a useful measure of the nation's need for physicians, at least for one or two decades, and (3) that our nation will not depend on attracting foreign trained physicians in larger numbers to provide essential medical care."

Though much of what the correspondent has said is true, he did not mention another factor in the supply of physicians for practice, namely the number that are being siphoned off in full-time activities in research, governmental institutions (notably the V.A.), physicians in the Armed Forces, physicians in industry and insurance areas, and in the expansion of governmental and state agencies. Though some of these do take care of patients, the contribution in numbers of persons seen does not make up their loss to the care of the Nation's private patients.

Quite obviously, answers are not available to satisfy all.—*Editor.*

ANNOUNCEMENTS

Calendar of Meetings, 1963

State

Sept. 30-Oct. 1—Tennessee Valley Medical Assembly, Read House, Chattanooga

Regional

Aug. 18 —Bluegrass Symposium, Kentucky Academy of General Practice, Phoenix Hotel, Lexington, Ky.

Sept. 20-21 —National Rural Health Conference, Arlington Hotel, Hot Springs, Ark.

Nov. 18-21 —Southern Medical Association, Municipal Auditorium, New Orleans, La.

National

Aug. 25-30 —American Congress of Physical Medicine and Rehabilitation, Sheraton-Dallas Hotel, Dallas, Texas

Aug. 26-29 —American Hospital Association, Waldorf Hotel, New York City

Sept. 5-9 —College of American Pathologists, Palmer House, Chicago, Ill.

Oct. 5-10 —American Academy of Pediatrics, Palmer House, Chicago, Ill.

Oct. 20-25 —American Academy of Ophthalmology & Otolaryngology, Hilton Hotel, New York City

Oct. 28-Nov. 1—American College of Surgeons, Brooks Hall, San Francisco, Calif.

Tennessee Pediatric Society

The Tennessee Pediatric Society will hold its annual scientific meeting in Gatlinburg at the Holiday Inn on September 15-16-17, 1963.

Emory University

A symposium on the Management of Retinal Detachment will be presented on September 26-27, 1963 at the Fulton County Medical Society's Academy of Medicine, Atlanta, Georgia, under the sponsorship of the Department of Ophthalmology, Emory University School of Medicine. The registration fee for the meeting will be $50.00. For full information, write to: Director, Postgraduate Education, Department of Ophthalmology, Emory University School of Medicine, 80 Butler Street, S.E., Atlanta 3, Georgia.

The Fifth Annual Postgraduate Course in Ophthalmology of the Emory University School of Medicine will be presented on December 5-6, 1963, at the Grady Memorial Hospital, Atlanta. Preoperative and postoperative management, and surgical principles and techniques in glaucoma surgery, cataract surgery, corneal, conjunctival and eyelid surgery will be discussed.

Admissions to St. Jude Hospital, Memphis

St. Jude Hospital is a new research institution for the study and care of children with serious diseases and for basic research in the biological sciences. At the present time the chief clinical interest is childhood cancer.

The hospital is accepting patients under the age of sixteen years who have acute leukemia or other forms of cancer. These children receive total care including conventional forms of treatment in addition to experimental drugs and procedures that have been developed to the point of clinical application.

Since this is a research institution, there are no accounts receivable for hospitalization, medical care or drugs. There are no private patients and fulltime research clinicians do not practice privately. Patients are accepted without regard to race, religion or place of residence. Preference of course is given to accepting children whose disease is untreated. In each instance, the patient must be referred by a licensed physician.

We will be pleased to have your cooperation in referring children with cancer to St. Jude Hospital.

Course in Chemical and Biological Defense

A 6-day training course in chemical and biological defense is being offered bimonthly at Fort McClellan, Alabama, by the USPHS, Division of Health Mobilization.

The course, which will be repeated through April 1964, is conducted in cooperation with the Army Chemical Corps School, and is designed to train public health and medical personnel in developing chemical and biological defense programs within states, counties, and principal municipalities.

There is no tuition fee nor is security clearance required. Future courses are scheduled to begin August 19, October 14, December 9, February 10, 1964, and April 6, 1964. One 2-week class beginning June 8, 1964, has been scheduled for the presentation of the course, "Public Health and Medical CBR Defense." The second week of this course will be devoted to Radiological Defense.

Requests for enrollment forms and further information should be addressed to: Deputy Chief, Training Branch, Division of Health Mobilization, Public Health Service, Department of Health, Education, and Welfare, Washington 25, D. C.

BRAWNER HOSPITAL, INC.
(Established 1910)
2932 South Atlanta Road, Smyrna, Georgia
FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION
MODERN FACILITIES
Jas. N. Brawner, Jr., M.D.
Medical Director
Aloysius I. Miller, M.D.
Mark A. Gould, M.D.
Phone HEmlock 5-4486

PLACEMENT SERVICE

The Placement Service of the Tennessee Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee, CY 1-4584.

Locations Wanted

A 29 year old Pediatrician, currently completing active military duty, would like partnership or associate practice in any community of Tennessee of 75,000 plus. Graduate Bowman Gray School of Medicine. Married. Jewish. Two years residency. Available upon notice. LW-445

◆

A 33 year old Internist would like institutional practice in any section of Tennessee, any population. Graduate of St. Louis College of Medicine. Married. Catholic. Residency training. Available immediately. LW-448

◆

A 33 year old physician, Board eligible in internal medicine, graduate of the University of Louvain, with three years residency, would like clinical, group, institutional, or associate practice in any location in Tennessee, in or near a large city. Married. Jewish. Available immediately. LW-458

◆

A 31 year old General Surgeon, graduate of Tulane Medical School, would like clinical, associate, solo or partnership practice in Middle or West Tennessee area of 10,000 to 30,000. Married. Methodist. A candidate of the American College of Surgeons. Available July 1963. LW-469

◆

A 27 year old Ob-Gyn, native of Tennessee, graduate of the University of Tennessee and now in residency training, would like clinical or associate practice in any: area of Tennessee with 10,000 or less population. Married. Methodist. Available January 1964. LW-471

◆

A General Practitioner, with surgery and anesthesia training, graduate of the Medical College of Georgia, would like to establish either solo or associate practice in Tennessee. Any size town in any area. Residency training, now in practice. Married. 43 years of age. Presbyterian. Available immediately. LW-472

◆

An Internist, graduate of the University of Illinois College of Medicine, would like clinical, associate, or hospital practice in any section of Tennessee with 25,000 to 100,000 population. Age 34. Married. Baptist. Just completing three years residency. Available September 1963. LW-484

◆

A 31 year old General Practitioner, graduate of the University of Maryland Medical School, presently in the service, would like clinical practice in East Tennessee upon his discharge. Married. Protestant. Available summer of 1964. LW-489

◆

A General Practitioner, graduate of the University of Tennessee Medical School, age 35, would like clinical, industrial, or associate practice in Middle or East Tennessee. No preference as to size. Now interning. Married. Presbyterian. Available January 1964. LW-490

◆

A General Surgeon, age 30, married; graduate of the medical school of Alabama, now in residency, would like associate or assistant practice in any section of Tennessee. Board eligible. Available January 1964. LW-491

Physicians Wanted

Middle Tennessee community of 8,000 in need of physician in the field of internal medicine. Two years internship and one year residency training preferred. Office space available. Hospital in area. PW-136

◆

Pediatrician, with two years internship and one year residency training, needed in Middle Tennessee community. Near hospital. Office space available. PW-137

◆

Furnished office available in clinic, located in suburb of Middle Tennessee city of over 200,000, for Internist. Assume practice of physician who is leaving. PW-172

◆

General Practitioner in Middle Tennessee town of 1,200, with trade area of over 8,000, would like an associate with at least 2 years residency in general surgery, and not over 45 years of age. Good schools. Near excellent recreational facilities. Housing and office space adequate. Some office equipment available. PW-175

◆

General practice available for physician in upper West Tennessee community of over 800. Hospital facilities nearby. No other doctor in area. Clinic leased completely equipped. Well established practice. Any financial arrangements easily worked out. PW-179

◆

Town of 2,500, near large metropolitan area, would like General Practitioner to establish practice. No other physician in area. Will build to suit physician. PW-182

◆

FOR SALE: Established partnership practice and spacious air-conditioned office building, suitable for two doctors, in Middle Tennessee town of 10,000. Located near open-staff Hill Burton hospital. PW-187

◆

FOR SALE: Location and practice (space and equipment) for lease or sale. Strictly surgical. Excellent opportunity in West Tennessee city of 40,000. Physician there leaving due to bad health. PW-191

◆

Middle Tennessee town of 7,500 in great need of physician. Well built clinic building available for office. Active support of county and town officials and civic organizations. No other physician in town. PW-195

◆

FOR RENT: 12 room clinic, no equipment. No other physician in immediate area. Near large city. Hospital facilities readily available. PW-196

OFFICERS OF THE TENNESSEE MEDICAL ASSOCIATION, 1963-64

President—Bland W. Cannon, M.D., Suite 402-B, 20 So. Dudley Street, Memphis
President-Elect—R. H. Kampmeier, M.D., Vanderbilt Hospital, Nashville
Vice-President—Joseph L. Raulston, M.D., 5338 Broadway, N.E., Knoxville
Vice-President—Charles A. Trahern, M.D., 1724 Memorial Drive, Clarksville
Vice-President—Henry B. Gotten, M.D., 1412 Madison Avenue, Memphis
Secretary—John H. Burkhart, M.D., 3000 No. Broadway, Knoxville
Executive Director—Mr. J. E. Ballentine, 112 Louise Avenue, Nashville 5

BOARD OF TRUSTEES

*Robert M. Finks, M.D., Chairman and Treasurer (1964) 2122 West End Ave., Nashville
*J. Malcolm Aste, M.D., (1964) 188 South Bellevue, Memphis
John H. Burkhart, M.D., (1964) 3000 No. Broadway, Knoxville
Bland W. Cannon, M.D., (1965) 402-B, 20 South Dudley Street, Memphis
*E. L. Caudill, Jr., M.D., (1966) 114 East H Street, Elizabethton
C. D. Hawkes, M.D., (1966) 220 So. Claybrook Street, Memphis
G. Baker Hubbard, M.D., (1966) Jackson Clinic, Jackson
*Joseph W. Johnson, Jr., M.D., (1965) Interstate Building, Chattanooga
*R. H. Kampmeier, M.D., (1966) Vanderbilt Hospital, Nashville
K. M. Kressenberg, M.D., (1966) 215 Cedar Lane, Pulaski
William J. Sheridan, M.D., (1964) Medical Arts Building, Chattanooga
*Executive Committee of Board of Trustees.

SPEAKER OF THE HOUSE

J. Malcolm Aste, M.D., 188 South Bellevue, Memphis
Vice-Speaker—Tom E. Nesbitt, M.D., 1921 Hayes Street, Nashville

COUNCILORS

First District—J. O. Hale, M.D., 401 North Boone St., Johnson City (1964)
Second District—B. M. Overholt, M.D., 717 Cumberland Avenue, S.W., Knoxville (1965)
Third District—M. F. Langston, M.D., 103 Palisades, Signal Mountain (1964)
Fourth District—Kenneth L. Haile, M.D., 137 W. Second Street, Cookeville (1965)
Fifth District—Coulter S. Young, M.D., Manchester (1964)
Sixth District—Harry T. Moore, Jr., M.D., 326 Mid-State Medical Center, Nashville (1965)
Seventh District—Wm. K. Owen, M.D., Pulaski (1964)
Eighth District—O. M. McCallum, M.D., Henderson (1965)
Ninth District—R. David Taylor, M.D., 620 Main Street, Dyersburg (1964)
Tenth District—Francis H. Cole, M.D., 188 South Bellevue, *Chairman*, Memphis (1965)

DELEGATES TO THE AMA

Alvin J. Ingram, M.D., 869 Madison Avenue, Memphis (1965)
Chas. C. Smeltzer, M.D., 521 W. Cumberland Avenue, Knoxville (1964)
Daugh W. Smith, M.D., 1926 Hayes Street, Nashville (1965)
Alternates:
Julian K. Welch, Jr., M.D., Brownsville (1965)
Wm. J. Sheridan, M.D., Medical Arts Building, Chattanooga (1964)
W. O. Vaughan, M.D., 2103 Hayes Street, Nashville (1965)

PRESIDENTS AND SECRETARIES OF COUNTY MEDICAL SOCIETIES, 1963-64

COUNTY	PRESIDENTS	SECRETARIES
Bedford County	Alfred Farrar, M.D., Shelbyville	W. L. Chambers, M.D., Gunter Building, Shelbyville
Benton-Humphreys County	John H. Overall, M.D., Camden	Hiram C. Capps, M.D., Waverly
Blount County	Homer L. Isbell, M.D., Med. Arts Bldg., Maryville	Oliver K. Agee, M.D., Arcade—Midland Center, Alcoa
Bradley County	Jas. C. Lowe, M.D., 755 Broad Street, N.W., Cleveland	James L. Allen, M.D., Calhoun
Campbell County	M. L. Davis, M.D., Lafollette	Roscoe C. Pryse, M.D., Lafollette
Chattanooga-Hamilton County	M. F. Langston, M.D., 103 Palisades Drive, Signal Mountain	C. Robert Clark, M.D., 210 Med. Arts Building Chattanooga Mrs. Flo Richardson, 109 Medical Arts Building, Chattanooga—Exec. Secy.
Cocke County	W. E. McGaha, M.D., 302 E. Main St., Newport	R. B. McMahan, M.D., 501 E. Main St., Newport
Coffee County	Edwin E. Gray, Jr., M.D., 108 W. Blackwell, Tullahoma	John A. Shields, M.D., Manchester
Consolidated Medical Assembly of West Tennessee	Eugene C. Crafton, M.D., Trenton	George B. Wyatt, M.D., 686 W. Forest Avenue, Jackson
Cumberland County	Arthur K. Husband, M.D., Crossville	Jas. T. Callis, M.D., Crossville
Nashville Academy of Medicine Davidson County	Walter L. Diveley, M.D., Medical Arts Building, Nashville	Tom E. Nesbitt, M.D., 1921 Hayes Street, Nashville Mr. Jack Drury, 112 Louise Avenue, Nashville—Executive Secretary
Dickson County	L. C. Jackson, M.D., Dickson	James T. Jackson, M.D., Dickson
Fentress County	Guy C. Pinkley, M.D., Jamestown	B. F. Allred, M.D., Jamestown
Franklin County	A. Reynolds Fite, M.D., Winchester	George L. Smith, M.D., Winchester
Giles County	J. U. Speer, M.D., 522 Jefferson, Pulaski	K. M. Kressenberg, M.D., 215 Cedar Lane, Pulaski
Greene County	W. L. McGuffin, M.D., 104 N. College, Greeneville	James R. McKinney, M.D., Takoma Hospital, Greeneville
Hamblen County	T. J. Hill, M.D., Citizens Bank, Rutledge	J. W. Richardson, M.D., 131 N. Daisy St., Morristown
Hawkins County	J. S. Lyons, M.D., 100 N. Church Street, Rogersville	Wm. H. Lyons, M.D., Rogersville
Henry County	Kenneth Ross, M.D., Paris Clinic, Paris	A. C. Dunlap, M.D., 302 Caldwell, Paris
Hickman-Perry County	Don L. Gaines, M.D., Hohenwald	Parker D. Elrod, M.D., Centerville
Jackson County	L. R. Dudney, M.D., Gainesboro	J. S. Johnson, M.D., Gainesboro
Knoxville Academy of Medicine	Richard C. Sexton, M.D., Blount Professional Bldg., Knoxville	Ray J. Leffler, M.D., East Tenn. Baptist Hospital, Knoxville
Lawrence County	Boyd P. Davidson, M.D., 369 Brink St., Lawrenceburg	James C. Hudgins, M.D., 200 S. Military, Lawrenceburg
Lincoln County	Paul E. Whittemore, M.D., 214 West College, Fayetteville	Anne U. Bolner, M.D., 204 N. Main, Fayetteville
Macon County	M. E. Painter, M.D., Lafayette	Jack C. Clark, M.D., Lafayette
Marshall County	J. W. Limbaugh, M.D., Med. Arts Bldg., Lewisburg	W. S. Poarch, M.D., Lewisburg
Maury County	William G. Fuqua, M.D., Hatcher Lane, Columbia	W. N. Jernigan, M.D., 209 W 8th Street, Columbia
McMinn County	Robert W. Trotter, M.D., Athens	James Cleveland, M.D., Englewood
Memphis-Shelby County	Gilbert J. Levy, M.D., 188 S. Bellevue, Memphis 4	R. A. Calandruccio, M.D., 869 Madison Ave., Memphis 3 Mr. Les Adams, 774 Adams Avenue, Memphis—Executive Secretary
Monroe County	R. C. Kimbrough, M.D., Madisonville	Jas. H. Barnes, M.D., Sweetwater
Montgomery County	Bryan T. Iglehart, M.D., 1724 Memorial Dr., Clarksville	F. C. Petty, M.D., Memorial Hospital, X-ray Dept., Madison St., Clarksville
Northwest Tennessee Academy of Medicine	R. David Taylor, M.D., Baird-Brewer Hosp., Dyersburg	W. I. Thornton, Jr., M.D., 402 Tickle St., Dyersburg
Overton County	H. B. Nevans, M.D., Livingston	W. G. Quarles, M.D., Livingston
Putnam County	J. T. DeBerry, M.D., 141 E. Broad St., Cookeville	Thurman Shipley, M.D., 135 W. 2nd St., Cookeville
Roane-Anderson County	Earl Eversole, Jr., M.D., Med. Arts Bldg., Oak Ridge	Robert DePersio, M.D., Med. Arts Bldg., Oak Ridge
Robertson County	W. P. Stone, M.D., 7th & Garner St., Springfield	Sue C. Atwood, M.D., 500 Main, Springfield
Rutherford County	B. S. Davison, M.D., 320 E. Main Street, Murfreesboro	Radford Smith, M.D., 420 N. University St., Murfreesboro
Scott County	H. M. Leeds, M.D., Oneida	Roy L. McDonald, M.D., Oneida
Sevier County	Robert A. Broady, M.D., Sevierville	John M. Hickey, Jr., M.D., Sevierville
Smith County	Hugh E. Green, M.D., Carthage	David G. Petty, M.D., Carthage
Sullivan-Johnson County	J. W. Erwin, M.D., Sullivan Co. Health Dept., Blountville	James G. McFaddin, M.D., 120 Blountville Highway, Bristol
Sumner County	Ira N. Kelley, M.D., Hartsville	Thomas F. Carter, M.D., Westmoreland
Tipton County	James S. Ruffin, M.D., Covington	Warren A. Alexander, M.D., Covington
Warren County	James L. Moore, M.D., Morford St., McMinnville	W. B. Bigbee, M.D., 202 Morford St., McMinnville
Washington-Carter-Unicoi County	Ben D. Hall, M.D., 115 W. Fairview Avenue, Johnson City	Gilbert Rannick, M.D., 107 W. Fairview Ave., Johnson City
Weakley County	Nathan F. Porter, M.D., Greenfield	E. T. Frank, M.D., Greenfield
White County	W. H. Anderson, M.D., Sparta	Robert F. Baker, M.D., 233 E. Broadway, Sparta
Williamson County	Adolphus Bray, M.D., Franklin	Joseph L. Willoughby, M.D., Franklin
Wilson County	James C. Bradshaw, Jr., M.D., McFarland Hospital, Lebanon	T. R. Puryear, M.D., 239 E. Main, Lebanon



BULK IS BASIC

METAMUCIL® IS BASIC...

(brand of psyllium hydrophilic mucilloid)

Metamucil corrects constipation in pregnant patients without disturbing either the rhythmic or digestive functions of the gastrointestinal tract.

By adding a soft, hydrophilic, easily-compressed bulk to the diet, Metamucil augments and reinforces the natural bulk stimulus to intestinal peristalsis and the defecation reflex. This purely local action softens hard fecal masses, increases muscle tone and helps reestablish the normal rhythm of elimination.

Since its action is not systemic and not habit forming, Metamucil may be safely administered throughout pregnancy.

Average Adult Dose: One rounded teaspoonful of Metamucil powder (or one packet of Instant Mix Metamucil) in a glass of cool liquid.

Metamucil is available as Metamucil powder in 4-, 8- and 16-ounce containers and as flavored Instant Mix Metamucil in cartons containing 16 and 30 single-dose packets.

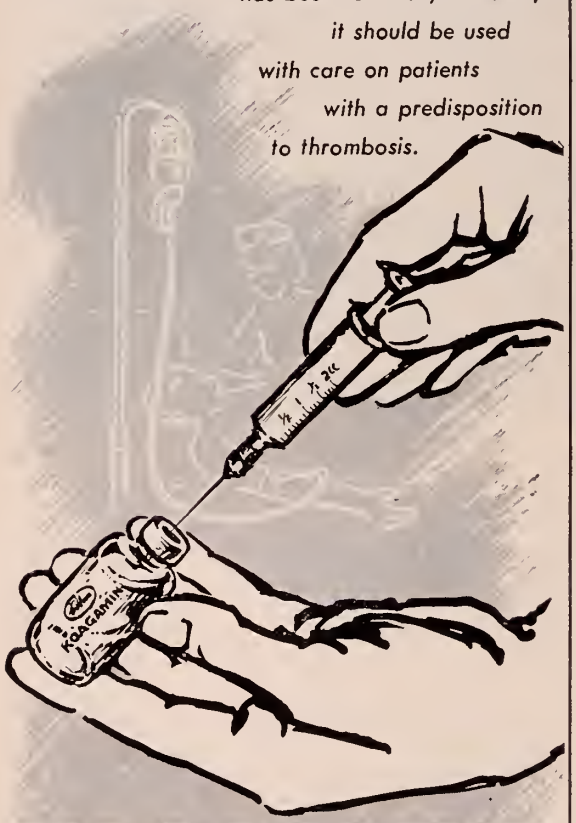
G. D. SEARLE & CO., Chicago 80, Illinois

Research in the Service of Medicine

reduce or obviate the need for transfusions and their attendant dangers

KOAGAMIN is indicated whenever capillary or venous bleeding presents a problem.

KOAGAMIN has an outstanding safety record -- in 25 years of use no report of an untoward reaction has been received; however, it should be used with care on patients with a predisposition to thrombosis.



KOAGAMIN®

parenteral hemostat

Each cc contains: 5 mg. oxalic acid, 2.5 mg. malonic acid, phenol 0.25%; sodium carbonate as buffer.

Complete data with each 10cc vial. Therapy chart on request.

CHATHAM PHARMACEUTICALS, INC.
Newark 2, New Jersey

Distributed in Canada by Austin Laboratories, Ltd. • Paris, Ontario



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN

Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities

KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.



The new or early hypertensive patient



The middle-aged hypertensive woman



The geriatric hypertensive patient



The overweight hypertensive patient



When depression or peptic ulcer adds problems



Effective blood pressure regulation for the many faces of hypertension[1-5]

Important note: For best results with CAPLA (mebutamate)

To demonstrate its blood-pressure-lowering effect, 'Capla' (mebutamate) must have been taken on schedule on the day of the patient's checkup. The maximum hypotensive response occurs within 2-4 hours. Because 'Capla' (mebutamate) is promptly excreted, q.i.d. dosage should be maintained for consistent results.

Product Information: 'Capla' (mebutamate) is indicated for control of hypertension, either alone in mild cases, or in conjunction with diuretics or peripherally acting hypotensive agents in more severe cases. Its mild tranquilizing properties are often found an additional benefit to its antihypertensive action.

Drowsiness and occasional lightheadedness, usually transient, are often signs of dosage higher than necessary for therapeutic effect. There are no known contraindications to mebutamate.

Usual Dosage: One 300 mg. tablet 3 or 4 times daily, before meals and at bedtime. Dosage should be adjusted to individual requirements; for example, older patients may require lower dosage.

Composition: Each tablet contains mebutamate, 300 mg.

Supplied: Bottles of 100 white, scored tablets. Literature and samples to physicians on request.

References: 1. Corcoran, A. C., and Loyke, H. F.: J.A.M.A. *181*:1043, Sept. 22, 1962. 2. Costello, A. C.: M. Times *91*:53, Jan. 1963. 3. Holloman, J. L. S., Jr.: J. Nat. M. A. *54*:94, Jan. 1962. 4. Kheim, T., and Kountz, W. B.: New York J. Med. *62*:1596, May 15, 1962. 5. Leslie, C. H.: J. Am. Geriatrics Soc. *10*:85, Jan. 1962.

6/63 63WL36K-12

Wallace Laboratories
Cranbury, N. J.

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply & Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601

SAINT ALBANS

PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

STAFF

James P. King, M.D., Director

Daniel D. Chiles, M.D.
Clinical Director

James K. Morrow, M.D.

Silas R. Beatty, M.D.

William D. Keck, M.D.

Edward W. Gamble, III, M D

J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.

Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: DAvenport 5-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Phone: CLifford 3-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
B. B. Young, M.D.
Phone: DIckens 6-7691

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 218, Ext. 55 and 56

PHYSICIANS MUTUAL INSURANCE COMPANY

(FORMERLY PHYSICIANS CASUALTY ASSOCIATION AND PHYSICIANS HEALTH ASSOCIATION)

115 SOUTH 42ND STREET OMAHA 31, NEBRASKA

Something "New"

For

Doctors

Protect Your Most Valuable Asset

"Your Time"

Our New Sickness and Accident Protection Policy
Pays the Amount You Select up to $500.00 per Month
For Loss of Time Caused by Accident or Sickness

Insuring Physicians & Dentists for 60 years.

PHYSICIANS MUTUAL INSURANCE COMPANY

COUPON

Physicians Mutual Insurance Co.
115 So. 42nd St. Omaha 31, Nebraska
"Offering Protection to Physicians and Dentists
Since 1902"

Name_____ Age_____

Address_____ City_____



NTz Nasal Spray gives prompt, dependable decongestion of the nasal membranes for fast symptomatic relief of hay fever. The first spray shrinks the turbinates, restores nasal ventilation and stops mouth breathing. The second spray, a few minutes later, improves sinus ventilation and drainage. Excessive rhinorrhea is reduced.

NTz Nasal Spray also provides decongestive relief for head colds, perennial rhinitis and sinusitis. Supplied in leakproof, pocket-size, squeeze bottles of 20 ml. and in bottles of 30 ml. with dropper.

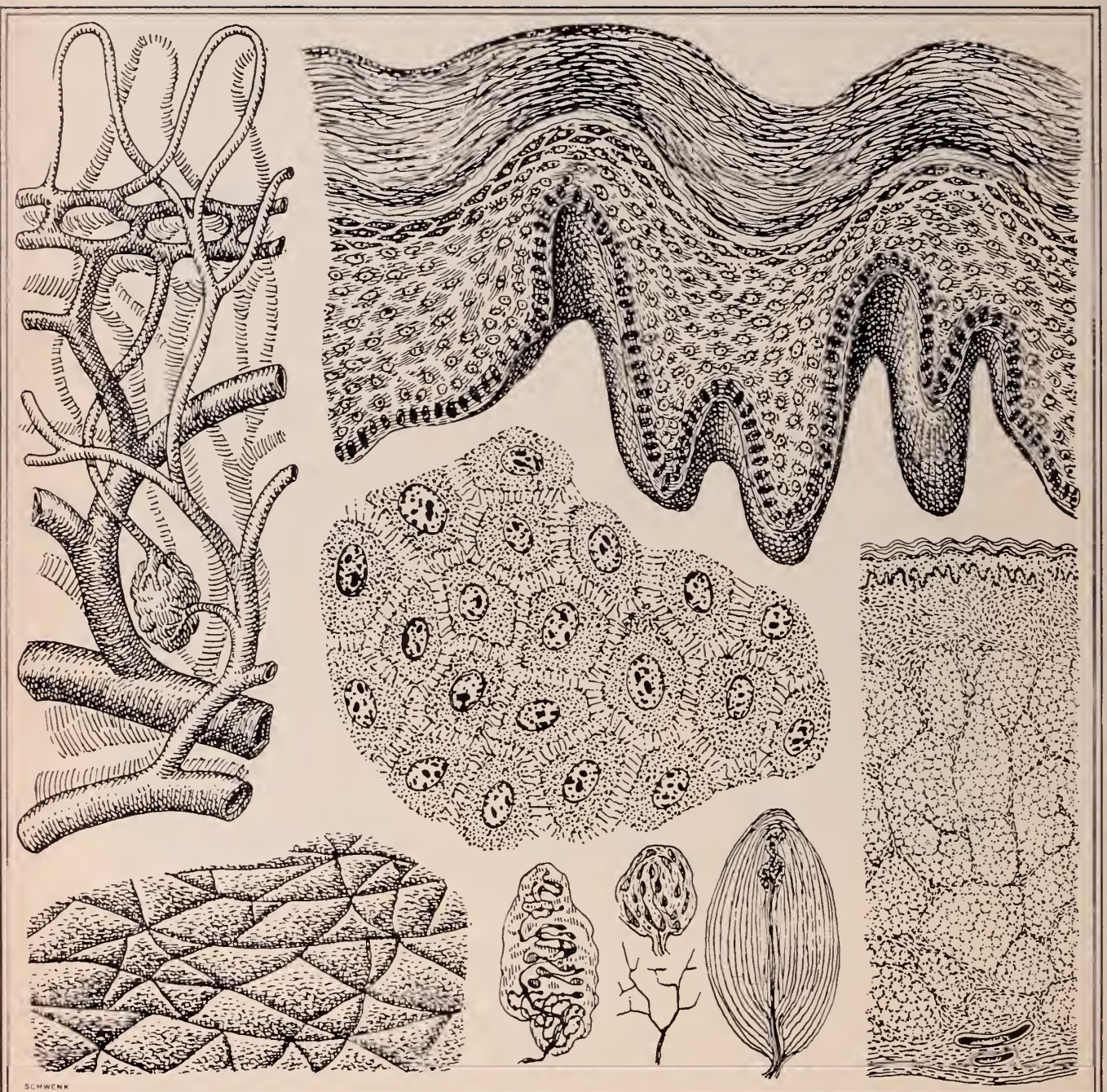
NTz® Nasal Spray

NTz is more than a simple vasoconstrictor. It contains Neo-Synephrine® HCl 0.5%—the efficacy of which is unexcelled—to shrink nasal membranes and provide inner space; Thenfadil® HCl 0.1% for topical antiallergic action; and Zephiran® Cl 1:5000 (antibacterial wetting agent) to promote the spread of the decongestant components to less accessible nasal areas.

NTz is well tolerated and does not harm respiratory tissues.

NTz, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran (brand of benzalkonium as chloride, refined), trademarks reg. U. S. Pat. Off. 1795M

Winthrop Winthrop Laboratories
New York 18, N. Y.


SCHWENK

Skin Deep

Allergic and inflammatory dermatoses, including psoriasis, have in many patients shown dramatic response to ARISTOCORT Triamcinolone systemic therapy. But it also provides gratifying symptomatic control with only minimal interference with other metabolic functions. In this respect, ARISTOCORT Triamcinolone, when compared with other corticosteroids, old and new, is distinguished. Typical steroid problems of sodium retention and edema, undesirable euphoria, or voracious appetite and excessive weight gain rarely occur.

ARISTOCORT Triamcinolone is indicated when anti-inflammatory, anti-allergic action of glucocorticoids is desired. SIDE EFFECTS of glucocorticoids generally: Cushingoid effects, hirsutism, leucopenia, purpura, vertigo, fatigue, increased hyperglycemia, osteoporosis, gastrointestinal hemorrhage, cataracts, growth suppression in children and increased intracranial pressure. Other glucocorticoid effects thought more likely to occur with triamcinolone: reversible weakness of muscles and flushing of face.

PRECAUTIONS: ARISTOCORT Triamcinolone should be used with extreme caution in viral infection, particularly herpes simplex and chicken pox, in tubercular or fungal infection, in active peptic ulcer, acute glomerular nephritis or myasthenia gravis.

FORMULA—Tablets (scored) containing 1 mg., 2 mg. or 4 mg. of triamcinolone. Syrup – 2 mg. of triamcinolone diacetate per 5 cc. (5 mg. of triamcinolone diacetate is equivalent to 4 mg. of triamcinolone).

Aristocort®
Triamcinolone

Maximum steroid benefits with minimum steroid penalty

Lederle LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York
164-R-3 (DC31-S)

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY

Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
50/150	84.67	202.61
100/300	92.29	220.83
200/300	96.32	230.48
300/600	112.80	253.20
500/1 Million	132.83	278.85
1 Million/1 Million	139.55	294.93

X-RAY—RADIUM OR SHOCK THERAPY

5/15	89.60	152.00
50/150	169.34	287.28
100/300	184.58	313.12
200/300	192.64	326.80
300/600	213.60	354.00
500/1 Million	237.66	383.68
1 Million/1 Million	251.10	406.48

1. Partnership liability, increase premium for each partner by 20%
2. Anesthesiologists take Physicians rates.
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Other limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability

*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

HIGHLAND HOSPITAL, INC.

FOUNDED IN 1904

ASHEVILLE, NORTH CAROLINA

Affiliated with Duke University





A nonprofit psychiatric institution, offering modern diagnostic and treatment procedures—insulin, electroshock, psychotherapy, occupational and recreational therapy—for nervous and mental disorders.
The Hospital is located in a 75-acre park, amid the scenic beauties of the Smoky Mountain Range of Western North Carolina, affording exceptional opportunity for physical and emotional rehabilitation.
The OUT-PATIENT CLINIC offers diagnostic services and therapeutic treatment for selected cases desiring non-resident care.

R. CHARMAN CARROLL, M.D.
Medical Director

ROBERT L. CRAIG, M.D.
Associate Medical Director

JOHN D. PATTON, M.D.
Clinical Director

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

WHO PAYS THE OFFICE RENT?

And telephone bill...and utilities...and employee salaries...*if YOU are sick or injured?*

Physicians Mutual Insurance Company (The Doctors' Company) will help pay all of your usual office expenses when you are sick or disabled—if you are the fortunate owner of our new, low-rate Office Overhead Expense Policy.

Premiums are tax deductible, too!

Write today for free information . . without obligation.

PHYSICIANS MUTUAL INSURANCE COMPANY

115 South 42nd St. Omaha 31, Nebraska

Tennessee Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

Underwritten By

Commercial Insurance Company

Newark, New Jersey



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James K. Ward, M.D.
Phones WOrth 1-1151

WILLIAM B. TERHUNE, M.D.

The Silver Hill Foundation

New Canaan Connecticut

Announces:

Appointment available for Senior Associate. Board Certified in Psychiatry to join our Group in the active practice of psychiatry. The Silver Hill Foundation is a psychotherapeutic unit for the treatment of the functional nervous disorders. The setting is that of a comfortable country home where a limited number of patients are under intensive, re-educational treatment for a period of several weeks.

Ideal work conditions, scientific freedom and guaranteed income. Only well qualified physician, capable of advancement should APPLY TO: Dr. William B. Terhune, Medical Director, New Canaan, Connecticut.

Associates: Dr. Marvin G. Pearce
Dr. Robert B. Hiden
Dr. William M. White
Dr. William D. Wheat
Dr. Warren A. Mann
Dr. Morgan F. Moore

Now Available

TO MEMBERS OF THE TENNESSEE MEDICAL ASSOCIATION

Who can qualify for this insurance

$500.00 Per month DISABILITY INCOME PLAN—NON CANCELLABLE

Pays LIFETIME for accident—10 YEARS CERTAIN FOR ILLNESS

DOUBLE BENEFITS FOR ANY THREE MONTH PERIOD OF HOSPITALIZATION

GENERAL PROVISIONS:

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.

Complete aviation coverage on both Monthly Benefit and Principal Sum both private and commercial flying

Monthly benefits payable from the first day of disability

May also be issued with elimination periods if desired

Individually NON CANCELLABLE except for—

1. Non Payment of Premium within the grace period
2. Retired from practice
3. Loss of membership in Tennessee Medical Association

Guaranteed renewable to age 70. Renewable thereafter at the option of the Company

For further information please contact

Sovereign States Insurance Company

1808 West End Avenue

Post Office Box 767

Nashville, Tennessee

Carl Yeakey, Director of Professional Services

"A Participating Insurance Company Underwriting The Tennessee Plan"



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE MARK ®



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can 75c
Pt. bottle with dispensing can $2.50
Qt. bottle with dispensing can $4.00
Plus post.

White Surgical Supply Co.
SURGICAL SUPPLIES & ACCESSORIES
515 West Church Ave. Knoxville 7, Tennessee
Telephone 3-1186

Today's Health
PUBLISHED BY THE American Medical Association
FOR THE AMERICAN FAMILY

A Good Buy in Public Relations

★ Place it in your reception room

Today's Health is published for the American Family by the American Medical Association, 535 N. Dearborn St.—Chicago 10, Illinois

Give your subscription order to a member of your local Medical Society Woman's Auxiliary, who can give you Special Reduced Rates.



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS and SYMPTOMS**: Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS**: Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT**: Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

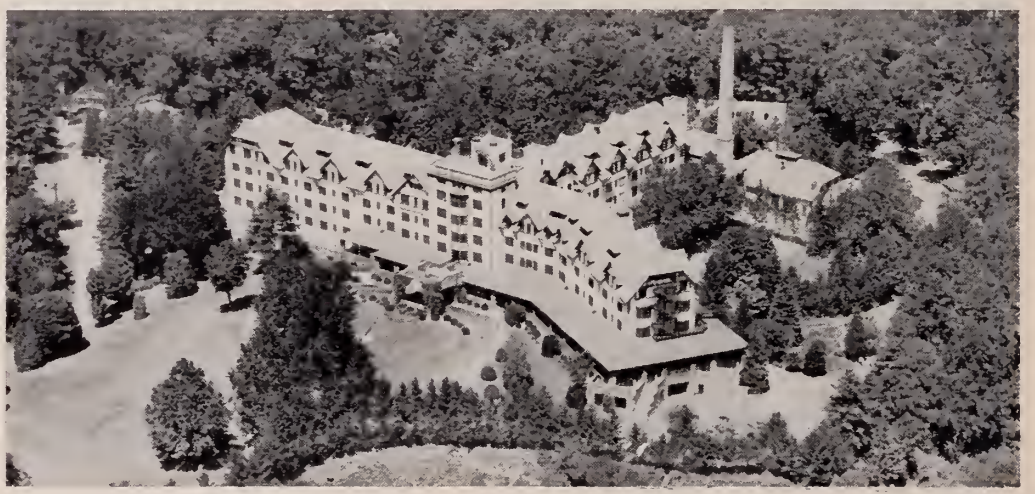
EDWARD C. DUNN
1104 Sudekum Bldg.
Nashville, Tenn.

SETH W. SIZER
1211 James Bldg.
Chattanooga, Tenn.

THERON M. LEMLY
1309 Poplar Ave.
Memphis, Tenn.

APPALACHIAN HALL
Established 1916

Asheville North Carolina



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D. MARK A. GRIFFIN, SR., M.D.
ROBERT A. GRIFFIN, M.D. MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

American Cyanamid Co.	XI, XXXVIII, XXXIX	Nashville Surgical Supply Co., Inc.	XXXIV
Ames Co., Inc.	XLIX	Parke-Davis and Company	II, III
Appalachian Hall	XLVIII	Physicians Mutual Ins. Co.	XXXVI, XLII
Bayer Co., The	XXIII	Physicians Products Co., Inc.	XV
Blood Bank Foundation	XXVIII	Poythress, Wm. P. & Co.	VI
Brawner Hospital, Inc.	Last Page Reading	Robins, A. H. Co., Inc.	XXV
Brayten Pharmaceutical Company	XXI	Roche Laboratories	L
Burroughs Wellcome & Co.	XX, XXII	St. Albans	XXXV
Chatham Pharmaceuticals, Inc.	XXXII	Schering	XXIX
City View Sanitarium	XLII	Searle, G. D. & Co.	XXXI
Coca-Cola	XLVI	Smith, Kline & French Laboratories	XXIV
Dorsey Laboratories	XII	Smith, Reed, Thompson & Ellis Co.	XLIII
Endo Laboratories	XIII	Sovereign States Ins. Co.	XLV
Farringer & Company	XL	Squibb	XVI
Glenbrook Laboratories	VII	Tafel Surgical Supply Co., Inc.	XLII
Guild Opticians	XLI	Tennessee Valley Medical Assn.	XVII
Highland Hospital, Inc.	XLI	Terhune, William B., M.D.	XLIV
Hill Crest Sanitarium	XLIV	Today's Health	XLVI
Kay Surgical, Inc.	XXXII	Wallace Laboratories	VIII, IX, XIV, XIX XXVI, XXVII, XXVIII, XXXIII
Lily, Eli and Co.	I, XXX	White Surgical Supply Co.	XLVI
Mayrand, Inc., Pharmaceuticals	X	Winthrop Laboratories	V, XVIII, XXXVII
Mutual Benefit Life Ins. Co.	XLVII		

neither **tension**, nor **spasm**,
nor **stasis**
stays this patient
from his
appointed rounds



DECHOLIN-BB®

. . . . . especially when
UPPER G.I. COMPLAINTS
have biliary implications

for nervous **tension** → **BUTABARBITAL SODIUM** 15 mg (¼ gr.).
WARNING: May be habit forming

for smooth-muscle **spasm** → **BELLADONNA EXTRACT** 10 mg (⅙ gr.).

for biliary/intestinal **stasis** → **DEHYDROCHOLIC ACID** 250 mg. (3¾ gr.).

Each Tablet Contains:

Average adult dose: 1 or, if necessary, 2 tablets three times daily. **Precautions:** Observe patients periodically for increased intraocular pressure and barbiturate habituation or addiction; caution drivers against possible drowsiness. **Side effects:** Dehydrocholic acid may cause transitory diarrhea; belladonna may cause blurred vision and dry mouth. **Contraindications:** Biliary tract obstruction, acute hepatitis, glaucoma, prostatic hypertrophy. **Available:** DECHOLIN-BB, bottles of 100 tablets. **Also:** DECHOLIN® with Belladonna (dehydrocholic acid, 250 mg.; belladonna extract, 10 mg.) and DECHOLIN® (dehydrocholic acid, 250 mg.), bottles of 100 and 500 tablets.

AMES COMPANY, INC.
Elkhart, Indiana
Toronto, Canada



Formerly nervous and tense, now better able to...

enjoy his children

This, in essence, is what happens when yo place a patient on Librium (chlordiazepo ide HCl). Since this agent generally relieve anxiety and tension without dulling ment clarity or inducing drowsiness, most patien become better able to function normall take an active interest in family and su roundings, meet and solve daily problem This antianxiety agent is virtually free fro extrapyramidal side effects, and does n produce or deepen depression.

Dosage: *Oral*—Usual adult dose in mild to moderate an ety and tension is 5 or 10 mg, 3 or 4 times daily; in sev anxiety and tension, 20 or 25 mg, 3 or 4 times dai *Parenteral*—To control acute conditions, the usual init adult dose is 50 to 100 mg I.M. or I.V.; not more th 300 mg should be given during a 6-hour period. ☐ **Si effects:** *Oral*—Drowsiness and ataxia, usually dose-relat have been reported in some patients—particularly t elderly and debilitated. Paradoxical reactions, *i.e.*, exci ment, stimulation, elevation of affect and acute rage, ha been reported in psychiatric patients; these reactions m be secondary to relief of anxiety and should be watch for in the early stages of therapy. Other side effects, u ally dose-related, have included isolated instances minor skin rashes, minor menstrual irregularities, naus constipation, increased and decreased libido. *Parente* —Following parenteral administration some patients m become drowsy or unsteady. The injectable form h occasionally produced mild, transitory fluctuations blood pressure. ☐ **Precautions:** *Oral*—In elderly, deb tated patients, limit dosage to smallest effective amo to preclude development of ataxia or oversedation (r more than 10 mg per day initially, to be increased gra ally as needed and tolerated). Until the correct main nance dosage is established, patients receiving this ag should be advised against possibly hazardous procedur requiring complete mental alertness or physical coor nation. Caution patients about possible combined effe with alcohol. Caution should be exercised in administ ing Librium (chlordiazepoxide HCl) to addiction-pr individuals. Careful consideration should be given to t pharmacology of any agents to be employed concor tantly—particularly the MAO inhibitors and phenoth zines. Observe usual precautions in impaired renal hepatic function. Periodic blood counts and liver fu tion tests may be advisable in protracted treatme *Parenteral*—Indicated primarily in acute states. Patie receiving this form of therapy should be kept under servation, preferably in bed, for up to three hours. Amb latory patients should not be permitted to operate vehicle following injection. Reduce dosage when treati patients with impaired renal or hepatic function. T injectable form should not be given to patients in sho or comatose states. Reduced dosage (usually 25 to 50 m should be used for elderly or debilitated patients, a for children.

anxiety and tension relieved
alertness maintained

Librium®
(chlordiazepoxide HCl)

the successor
to the tranquilizers

ROCHE

THE JOURNAL OF THE

TENNESSEE MEDICAL ASSOCIATION

TENNESSEE VALLEY MEDICAL ASSEMBLY
Read House, Chattanooga, Tennessee
September 30 and October 1, 1963

TENNESSEE ACADEMY OF GENERAL PRACTICE
15th Annual Scientific Assembly
Nashville Municipal Auditorium
October 24-25, 1963

AUGUST, 1963

Volume 56 Number 8

of Contents on Page IV
to Advertisers on Page XLIV

The Lente Insulins

- wide range of Insulin activity
- free of modifying protein

Additional information available upon request.
Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

300026

Helps the epileptic to realize his potential

DILANTIN®

(DIPHENYLHYDANTOIN SODIUM)

PARKE-DAVIS



"The most effective form of emotional approach remains the demonstration to the patient that the seizure phenomena can be adequately controlled with anticonvulsant medication."[1]

At present, diphenylhydantoin sodium is generally regarded as the standard in anticonvulsant medication because of its effectiveness in controlling grand mal and psychomotor seizures.[2-10] It possesses a wide margin of safety, and incidence of side effects is minimal.[4] With this agent, oversedation is not a problem.[3] Moreover, its use is often accompanied by improvement in the patient's memory, intellectual performance, and emotional stability.[11]

Indications: Grand mal epilepsy and certain other convulsive states.

Precautions: Toxic effects are infrequent: allergic phenomena such as polyarthropathy, fever, skin eruptions, and acute generalized morbilliform eruptions with or without fever. Rarely, dermatitis goes on to exfoliation with hepatitis, and further dosage is contraindicated. Eruptions then usually subside. Though mild and rarely an indication for stopping dosage, gingival hypertrophy, hirsutism, and excessive motor activity are occasionally encountered, especially in children, adolescents, and young adults. During initial treatment, minor side effects may include gastric distress, nausea, weight loss, transient nervousness, sleeplessness, and a feeling of unsteadiness. All usually subside with continued use. Megaloblastic anemia has been reported. Nystagmus may develop. Nystagmus in combination with diplopia and ataxia indicates dosage should be reduced. Periodic examination of the blood is advisable.

DILANTIN Sodium (diphenylhydantoin sodium) is available in several forms including Kapseals,® 0.03 Gm. and 0.1 Gm., bottles of 100 and 1,000.

REFERENCES: (1) Hammill, J. F.: J. Chron. Dis. 8:448, 1958. (2) Roseman, E.: Neurology 11:912, 1961. (3) Bray, P. F.: Pediatrics 23:151, 1959. (4) Chao, D. H.; Druckman, R., & Kellaway, P.: Convulsive Disorders of Children, Philadelphia, W. B. Saunders Company, 1958, p. 120. (5) Crawley, J. W.: M. Clin. North America 42:317, 1958. (6) Livingston, S.: The Diagnosis and Treatment of Convulsive Disorders in Children, Springfield, Ill., Charles C Thomas, 1954, p. 190. (7) Ibid.: Postgrad. Med. 20:584, 1956. (8) Merritt, H. H.: Brit. M. J. 1:666, 1958. (9) Carter, C. H.: Arch. Neurol & Psychiat. 79:136, 1958. (10) Thomas, M. H., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, The Williams & Wilkins Company, 1956, pp. 37-48. (11) Goodman, L. S., & Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 2, New York, The Macmillan Company, 1955, p. 187.

14863

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan



The Journal of the TENNESSEE MEDICAL ASSOCIATION

Published Monthly

By Tennessee Medical Association

OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE

Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 8

AUGUST, 1963

Per Year, $5.00
Single Copy, 50 Cents

Published Monthly

Contents

Rabies in An Endemic Area and the Value of the Fluorescent Antibody Technique, LUTHER E. FREDRICKSON, D.V.M., M.P.H., Nashville, Tenn. 311

Recent Trends in the Treatment of Hemorrhoids, G. TURNER HOWARD, JR., M.D., Knoxville, Tenn. 314

The Medical Examiner System, J. T. FRANCISCO, M.D., Memphis, Tenn. 319

Significance and Management of Acidosis Occurring in Conjunction with Cardiac Resuscitation, E. CONVERSE PEIRCE, II, M.D., Knoxville, Tenn. 321

The Use of Alpha-Chymotrypsin in Surgery of Traumatic Cataract, J. ED CAMPBELL, JR., M.D., Knoxville, Tenn. 324

Cystic Disease of the Renal Medulla, MARTIN KERLAN, M.D., and MRS. OLIVE Q. RUSSELL HT, (ASCP) Mountain Home, Tenn. 330

Staff Conference 333

Clinicopathologic Conference 335

President's Letter 340

Editorial 341

Tennessee Medical Association 1963-64 Standing Committees 343

Deaths 344

Programs and News of Medical Societies 344

National News 344

Medical News in Tennessee 346

Personal News 348

Announcements 349

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 12, Tennessee.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
R. H. KAMPMEIER, M.D., Editor
This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein
Copyright, 1963, by the Tennessee Medical Journal



NTz Nasal Spray gives prompt, dependable decongestion of the nasal membranes for fast symptomatic relief of hay fever. The first spray shrinks the turbinates, restores nasal ventilation and stops mouth breathing. The second spray, a few minutes later, improves sinus ventilation and drainage. Excessive rhinorrhea is reduced.

NTz Nasal Spray also provides decongestive relief for head colds, perennial rhinitis and sinusitis. Supplied in leakproof, pocket-size, squeeze bottles of 20 ml. and in bottles of 30 ml. with dropper.

NTz® Nasal Spray

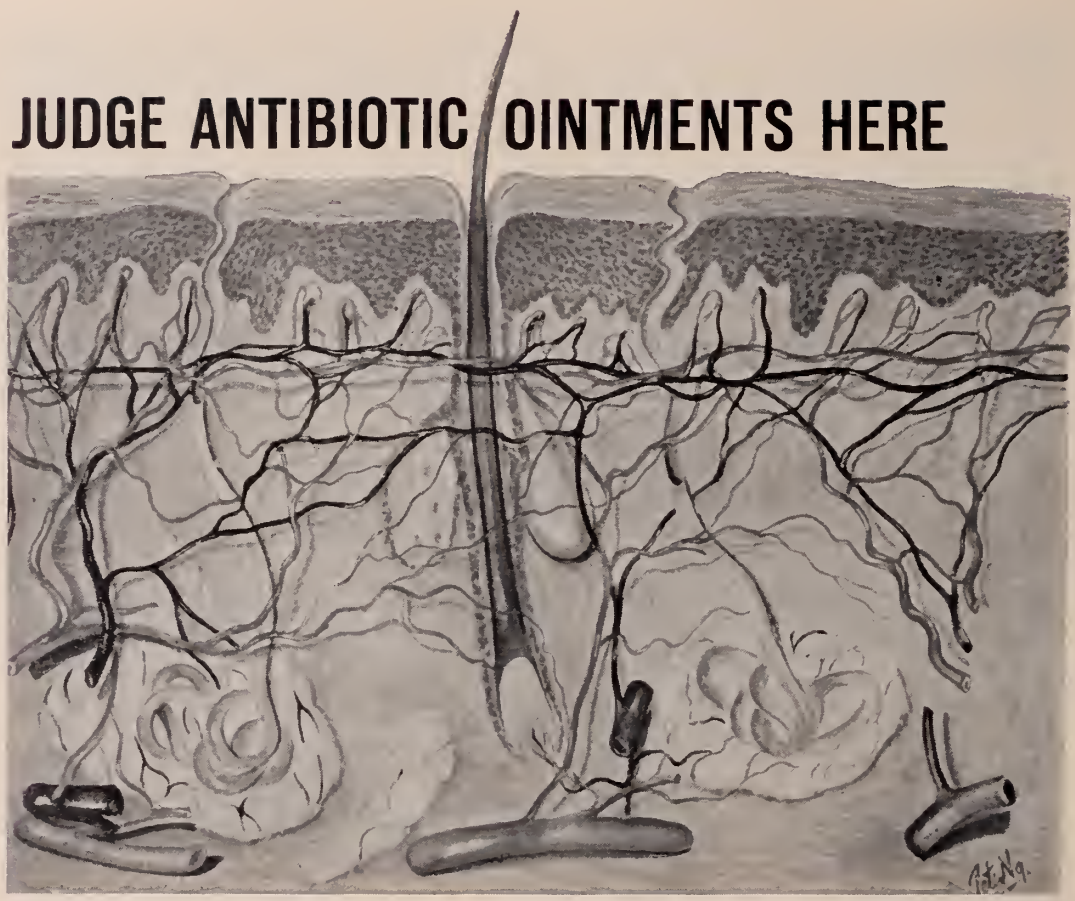
NTz is more than a simple vasoconstrictor. It contains Neo-Synephrine® HCl 0.5%—the efficacy of which is unexcelled—to shrink nasal membranes and provide inner space; Thenfadil® HCl 0.1% for topical antiallergic action; and Zephiran® Cl 1:5000 (antibacterial wetting agent) to promote the spread of the decongestant components to less accessible nasal areas.

NTz is well tolerated and does not harm respiratory tissues.

NTz, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran (brand of benzalkonium as chloride, refined), trademarks reg. U. S. Pat. Off. 1795M

Winthrop Winthrop Laboratories
New York 18, N. Y.

JUDGE ANTIBIOTIC OINTMENTS HERE



Results on skin are final proof of any topical antibiotic's effectiveness

No in vitro test can duplicate a clinical situation on living skin. 'Neosporin' (polymyxin B—bacitracin—neomycin) Antibiotic Ointment has consistently proven its effectiveness in thousands of cases of bacterial skin infection. The spectra of the three antibiotics overlap in such a way as to provide bactericidal action against most pathogenic bacteria likely to be found topically. Diffusion of the antibiotics from the special petrolatum base is rapid since they are insoluble in the petrolatum, but readily soluble in tissue fluids. The Ointment is bland and rarely sensitizes.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs.

Supplied: Tubes of 1 oz., ½ oz. with applicator tip, and ⅛ oz. with ophthalmic tip.

Complete literature available on request from Professional Services Dept. PML.

'NEOSPORIN'®
brand

POLYMYXIN B-BACITRACIN-NEOMYCIN ANTIBIOTIC OINTMENT

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

blood, milk and Maalox®

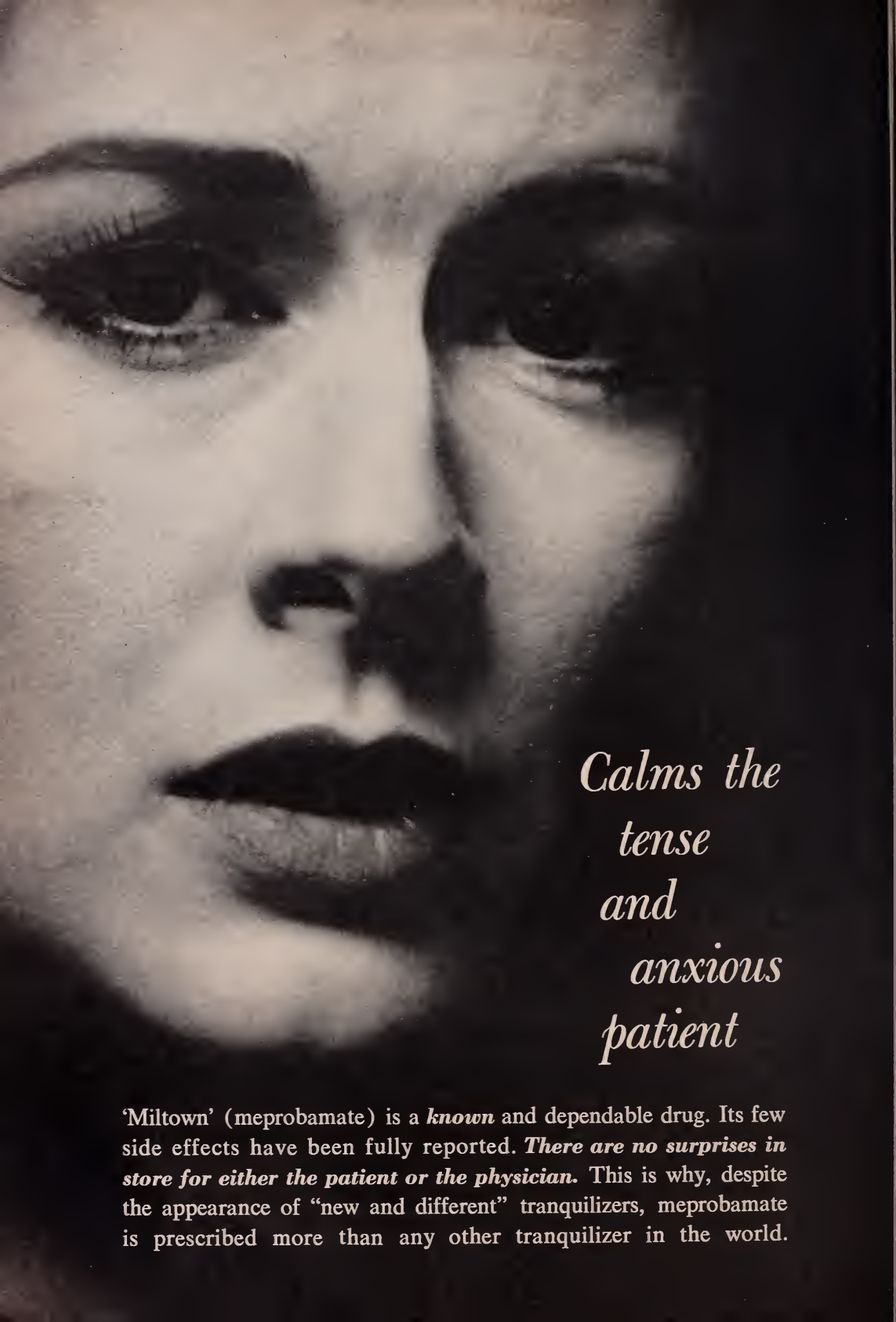
(magnesium-aluminum hydroxide gel)

Practically standard treatment, now, for perforated ulcer. Why is Maalox included? Antacid therapy *must* continue long after the wound has healed, and patients started on Maalox tend to stay on Maalox. It tastes good; it's effective and will not cause constipation—three important reasons for Maalox over the long haul. Some physicians, we are told, order Maalox routinely for hospital patients on drugs which could irritate. They feel it reduces the likelihood of gastric discomfort. Supplied: Suspension; Tablets No. 1; Tablets No. 2. (Each Maalox No. 1 Tablet is equivalent to 1 teaspoonful and each Maalox No. 2 Tablet is equivalent to 2 teaspoonfuls of Suspension.)



RORER

WILLIAM H. RORER, INC., FORT WASHINGTON, PA.



'Miltown' (meprobamate) is a ***known*** and dependable drug. Its few side effects have been fully reported. ***There are no surprises in store for either the patient or the physician.*** This is why, despite the appearance of "new and different" tranquilizers, meprobamate is prescribed more than any other tranquilizer in the world.

Clinically Proven

in more than 750 published clinical studies and over eight years of clinical use

Outstanding Record of Effectiveness and Safety

1. Relieves anxiety and anxious depression in a broad spectrum of clinical conditions.
2. Doesn't leave patients "too groggy" to work or think or learn.
3. Relaxes both mind and skeletal muscle. Relieves physical tension as well as emotional stress.

Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Massive overdosage may produce coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.

Usual dosage: 1 or 2 400 mg. tablets t.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50.

the original meprobamate

Miltown®

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-9235

TENNESSEE VALLEY MEDICAL ASSEMBLY

(Sponsored by the Chattanooga and Hamilton County Medical Society)

READ HOUSE, CHATTANOOGA, TENNESSEE

Monday, September 30, and Tuesday, October 1, 1963

11TH ANNUAL ASSEMBLY

MONDAY, SEPTEMBER 30, 1963

A.M.

7:30 REGISTRATION BEGINS

9:00 NEAL OWENS, M.D., Plastic Surgeon, New Orleans, La., *"Plastic Surgery of Interest to the General Practitioner"*

9:30 CARL V. MOORE, M.D., Busch Prof. of Medicine and Head of Dept., Washington University, St. Louis, Mo., *"Iron Deficiency Anemias"*

10:00-10:30 A.M. — INTERMISSION

10:30 J. HARTWELL HARRISON, M.D., Clin. Prof., Genito-Urinary Surgery, Harvard Medical School, Boston, Mass., *"The Management of Cancer of the Prostate"*

11:00 MARION B. SULZBERGER, M.D., Tech. Dir. Research, Office of Surgeon General, Washington, D.C., *"Opportunities and Obligations of A Military Medical Research Program"*

11:30 B. MARDEN BLACK, M.D., Prof. of Surgery, Mayo Foundation, Rochester, Minn., *"Hyperparathryoidism"*

NOON

P.M.

2:00 JOSEPH STOKES, JR., M.D., Prof. Pediatrics and Physician-in-Chief, Children's Hospital, Philadelphia, Pa., *"Recent Work on Measles Immunization"*

2:30 ISADORE DYER, M.D., Prof. Obstetrics, Tulane University, New Orleans, La., *"Severe Trauma In Pregnancy and Delivery"*

3:00-3:30 P.M. — INTERMISSION

3:30 J. VERNON LUCK, M.D., Prof. Clin. Orthopaedic Surgery, University of Southern California, *"Hip Joint Problems From Birth to Old Age"*

4:00 E. GREY DIMOND, M.D., Dir., Institute of Cardiopulmonary Diseases, Scripps Clinic and Research Foundation, La Jolla, Calif., *"Can the Presence of Angina Pectoris Be Proved"*

4:30 *Questions and Answer Period*

REGISTRATION FEE $15.00

BANQUET TICKET $7.50

TUESDAY, OCTOBER 1, 1963

A.M.

9:00 KENNETH W. WARREN, M.D., Surgical Staff, Lahey Clinic, Boston, Mass., *"Surgical Aspects of Obstruction of the Common Bile Duct"*

9:30 JOHN H. MULHOLLAND, M.D., Prof. Surgery, New York University College of Medicine, New York, N. Y., *"Studies in Biliary-Pancreatic Disease"*

10:00-10:30 A.M. — INTERMISSION

10:30 RALPH A. REIS, M.D., Prof. Obstetrics and Gynecology, Northwestern University, Chicago, Ill., *"Endometriosis"*

11:00 HARRY SHWACHMAN, M.D., Assoc. Clin. Prof., Pediatrics, Harvard Medical School, Boston, Mass., *"Cystic Fibrosis: Clinical Variants and Methods of Diagnosis"*

12:00 EDGAR A. HINES, JR., M.D., Emeritus Prof. Med., University of Minnesota, and Consultant, Internal Medicine, V. A. Hospital, Oteen, N. C., *"The Evaluation of the Patient Suspected of Having Peripheral Vascular Disease"*

NOON

P.M.

2:00 LEON SCHIFF, M.D., Prof. of Medicine, University of Cincinnati College of Medicine, Cincinnati, Ohio, *"Newer Developments in the Study of Jaundice"*

2:30 HERBERT D. ADAMS, M.D., Surgical Staff, Lahey Clinic, Boston, Mass., *"Intrathoracic Goiter: Diagnosis and Treatment"*

3:00-3:30 — INTERMISSION

3:30 HARRY E. BACON, M.D., Prof and Head of Dept., Proctologic Surgery, Temple University, Philadelphia, Pa., *"The Diagnosis and Surgical Treatment of Diverticulitis of the Colon"*

4:00 Symposium on *"Gastro-Intestinal Hemorrhage"* moderated by Dr. John H. Mulholland, with Dr. Kenneth W. Warren, and Dr. Harry E. Bacon as panelists.

Banquet on Monday night, September 30, 1963, in the ballroom of the Read House at 7:30 p.m. Banquet Speaker—Isadore Dyer, M.D., New Orleans, La. (Doctors and wives are invited to this banquet.)
Subject—*"Conceiving Can Be Fun"*

AIDS TO:

Diagnosis
Examination
Treatment

New (11th) Edition!
Beeson & McDermott—Cecil-Loeb TEXTBOOK OF MEDICINE

A new and distinguished team of Editors guides this well-known textbook in its *New (11th) Edition.* It provides precise and thorough descriptions of all those disease entities you are likely to encounter—over 800 in all. Each is discussed fully and completely: *etiology, epidemiology; morbid anatomy; pathologic physiology; symptoms; diagnosis; prognosis; therapy.* Contents range from a commentary on *Patient-Physician Communication* to *Management of Bronchopulmonary Insufficiency.* In this revision you'll find increased emphasis on pathologic physiology; a new section on *Genetic Diseases;* expansion of the material on *Viral Diseases;* reorganization and augmentation of sections on *Bronchopulmonary Disease* and *Gastroenterology;* a brilliant discussion of *Nucleic Acids, Genes, Viruses, and Immunity;* 67 new contributors. *The text is available either as a single volume or a two-volume set.*

Edited by PAUL B. BEESON, M.D., Ensign Professor of Medicine, Yale University School of Medicine; and WALSH MCDERMOTT, M.D., Livingston Farrand, Professor of Public Health, Cornell University Medical College. With contributions by 173 authorities. With the assistance of 5 Associate Editors: ALEXANDER G. BEARN, PHILIP K. BONDY, CARL V. MOORE, MARVIN H. SLEISENGER, the late HAROLD G. WOLFF. 1895 pages, 7⅜" x 10¾", with 238 illustrations. Single volume, $19.50. Two-volume set, $23.50. *New (11th) Edition—Just Published!*

New (2nd) Edition!
Mayo Clinic—CLINICAL EXAMINATIONS IN NEUROLOGY

Here are the proved, successful techniques used at the Mayo Clinic in the neurologic examination. The book is written in concise, practical form—a series of working blueprints. The authors carefully guide the reader in developing his mastery of the clinically useful techniques in this important area of practice. You'll find effective techniques for taking the neurologic history, and reproductions of the various forms the Mayo Clinic staff developed for recording the history and the results of the clinical examination. They give you their order of procedure, their techniques of examination of the cranial nerves, motor function, reflexes, mental function, autonomic function, specific methods of examination for use in the sensory examination, etc. For this up-dated *New (2nd) Edition* the information in all chapters was brought up-to-the-minute. The problems of performing neurological examinations on infants are delineated in a full chapter, and a new chapter is devoted to roentgenographic techniques. You'll find a full measure of practical help in this up-to-date volume.

By Members of the Sections of Neurology and Section of Physiology, Mayo Clinic and Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota, Rochester, Minnesota. 396 pages, 6⅛" x 9¼", illustrated. About $9.00. *New (2nd) Edition—Just Ready!*

Three new EDITIONS from SAUNDERS

New (2nd) Edition!
Graham—THE CYTOLOGIC DIAGNOSIS OF CANCER

This valuable manual (formerly under auspices of the Vincent Memorial Laboratory) discusses the fundamentals, potentials and limitations of cytologic diagnosis of cancer—plus detailed, authoritative guidance on preparation and interpretation of cytologic smears. Material is based on study of *tens of thousands of cases.* Vaginal smears, smears of sputum or bronchial aspirations, urine sediment, gastric secretion and the sediment of serous fluid are all covered. Each chapter begins with an illustration and discussion of a histologic section of a particular tissue. This is followed by: (a) lower-power photomicrograph of a field of classical desquamated cells derived from that epithelium; (b) a higher-power photomicrograph of the same; (c) a colored drawing. In this *New (2nd) Edition* the cytological picture of dysplasia of the uterine cervix, the cytology of esophageal cancer, the cytology of needle aspirations of solid masses, and the cellular aberrations present in pernicious anemia are discussed in separate chapters. The material on histiocytes in vaginal secretion, and the chapter on adenocarcinoma of the uterine corpus are rewritten. Other valuable new chapters cover: the confirmation of unexpected positive reports; the reporting of smears; the identification of cells.

By RUTH M. GRAHAM, Sc.D. (Hon.), Roswell Park Memorial Institute, Buffalo. 387 pages, 6⅜" x 9¾", with 992 illustrations on 311 figures. 32 color plates. About $13.50. *New (2nd) Edition—Just Ready!*

To Order Mail Coupon Below!

W. B. SAUNDERS COMPANY

West Washington Square Philadelphia 5

Please send and bill me:

☐ Beeson & McDermott—Cecil-Loeb *Medicine* . . . 2 vol. set.....$23.50

☐ Single Volume form.....$19.50

☐ Graham—*Cytologic Diagnosis of Cancer*.....About $13.50

☐ Mayo Clinic—*Clinical Examinations in Neurology*.....About $9.00

Name.....

Address.....

SJG 8-63

CORONARY VASODILATOR

. . . IN TIMED, SUSTAINED RELEASE FORM FOR PROTECTION DURING THE CRITICAL HOURS . . . .

3 COMBINATIONS FOR DESIRED EFFECT!

ANTORA-H

Phenobarbital (Warning: May be habit forming).	3/4 gr.
Hyoscyamine Sulfate	0.3858 mg.
Atropine Sulfate	0.0750 mg.
Hyoscine Hydrobromide	0.0222 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA-B

Secobarbituric Acid (Warning: May be habit forming).	50 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA

Pentaerythritol Tetranitrate	30 mg.

The ANTORA family offers wide latitude in treating the angina patient with or without anxiety syndromes or with spastic and hypertonis symptoms. The versatility of PETN justifies its use in several combinations to benefit cardiovascular patients. No incompatibility with nitroglycerine is evident.

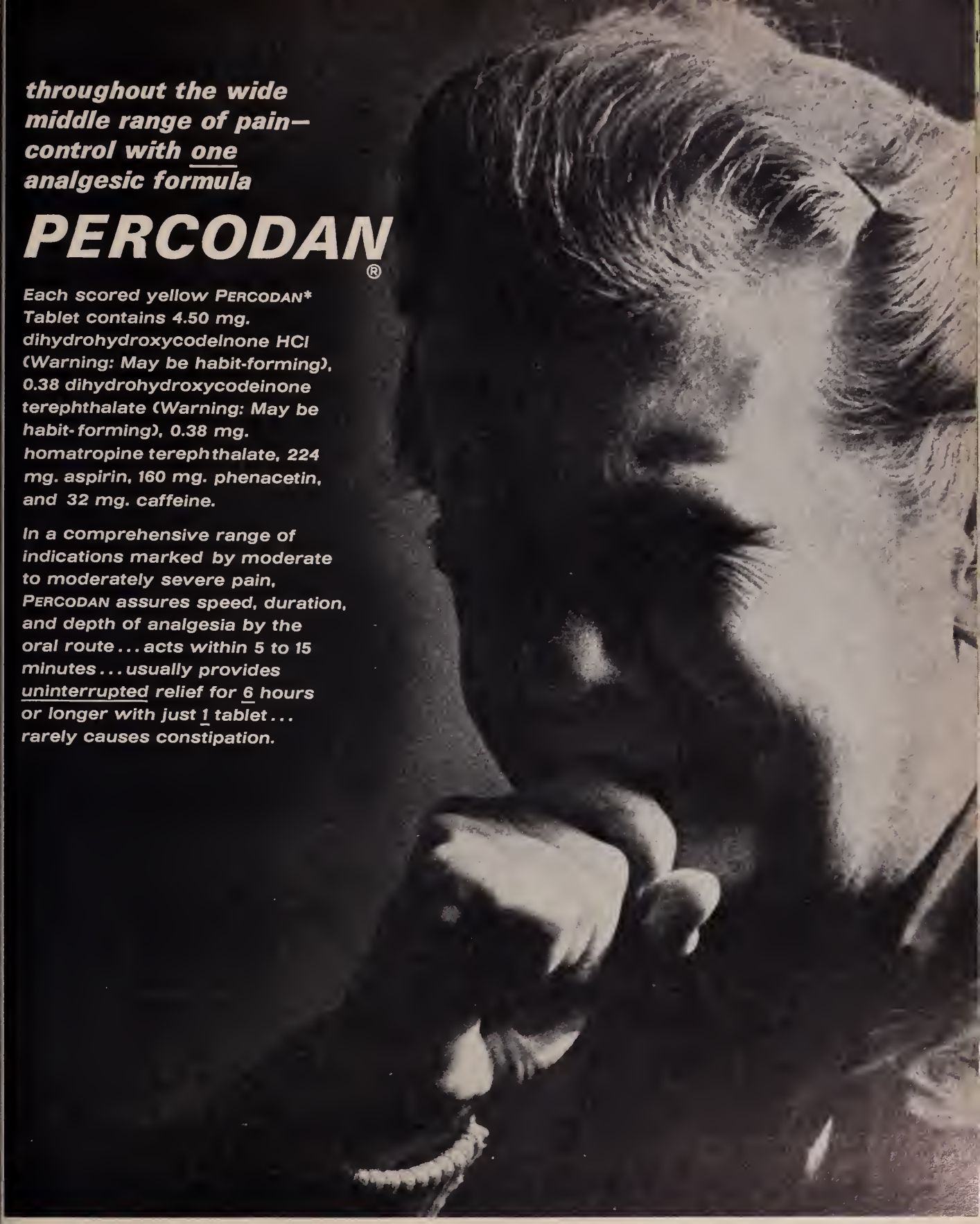
AVAILABLE: Bottles of 60 and 250 capsules.

BRIEF SUMMARY:

Side Effects: Transient headaches and nausea occasionally, not usually severe enough to discontinue medication. In a few sensitive patients, depression, arthralgias, xerostomia and myalgia may be observed. Contraindications: glaucoma, intraocular pressure, barbiturate hypersensitivity.

SAMPLES AND LITERATURE ON REQUEST

Mayrand, INC. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA



throughout the wide middle range of pain— control with one analgesic formula

PERCODAN®

Each scored yellow PERCODAN* *Tablet contains 4.50 mg. dihydrohydroxycodelnone HCl (Warning: May be habit-forming), 0.38 dihydrohydroxycodeinone terephthalate (Warning: May be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. aspirin, 160 mg. phenacetin, and 32 mg. caffeine.*

In a comprehensive range of indications marked by moderate to moderately severe pain, PERCODAN *assures speed, duration, and depth of analgesia by the oral route... acts within 5 to 15 minutes... usually provides uninterrupted relief for 6 hours or longer with just 1 tablet... rarely causes constipation.*

Average Adult Dose—1 tablet every 6 hours. **Side Effects and Contraindications**—Although generally well tolerated, PERCODAN may cause nausea, emesis, or constipation in some patients. PERCODAN should be used with caution in patients with known idiosyncrasies to aspirin or phenacetin, and in those with blood dyscrasias. **Also available:** PERCODAN®-DEMI, containing the complete PERCODAN formula but with only half the amount of salts of dihydrohydroxycodeinone and homatropine. Both products are on oral Rx in all states where laws permit. Narcotic order required. **Literature on request.**

Endo®

ENDO LABORATORIES Richmond Hill 18, New York

*U. S. Pats. 2,628,185 and 2,907,768



Whether your muscle-injury patient is a professional athlete or just a weekend golfer, you can expect rapid results with 'Soma' (carisoprodol).

This unique drug breaks up both muscle spasm and pain at the same time. Onset of action takes only 30 minutes, and your patient will usually begin to feel better within hours.

As Conant demonstrated in a study of 106 patients with musculoskeletal injuries, 88% of the patients treated with 'Soma' (carisoprodol) achieved good to excellent results. *(Clinical Medicine*, March, 1962.)

Carisoprodol seldom produces side effects. Occasional drowsiness may occur, usually at higher than recommended dosage. Individual reactions may occur rarely.

For severe athletic strains or everyday sprains, you can rely on 'Soma' (carisoprodol) to help speed recovery with notable safety.

USUAL DOSAGE: ONE 350 MG. TABLET Q.I.D.

The muscle relaxant with
an independent pain-relieving action

Soma®
carisoprodol

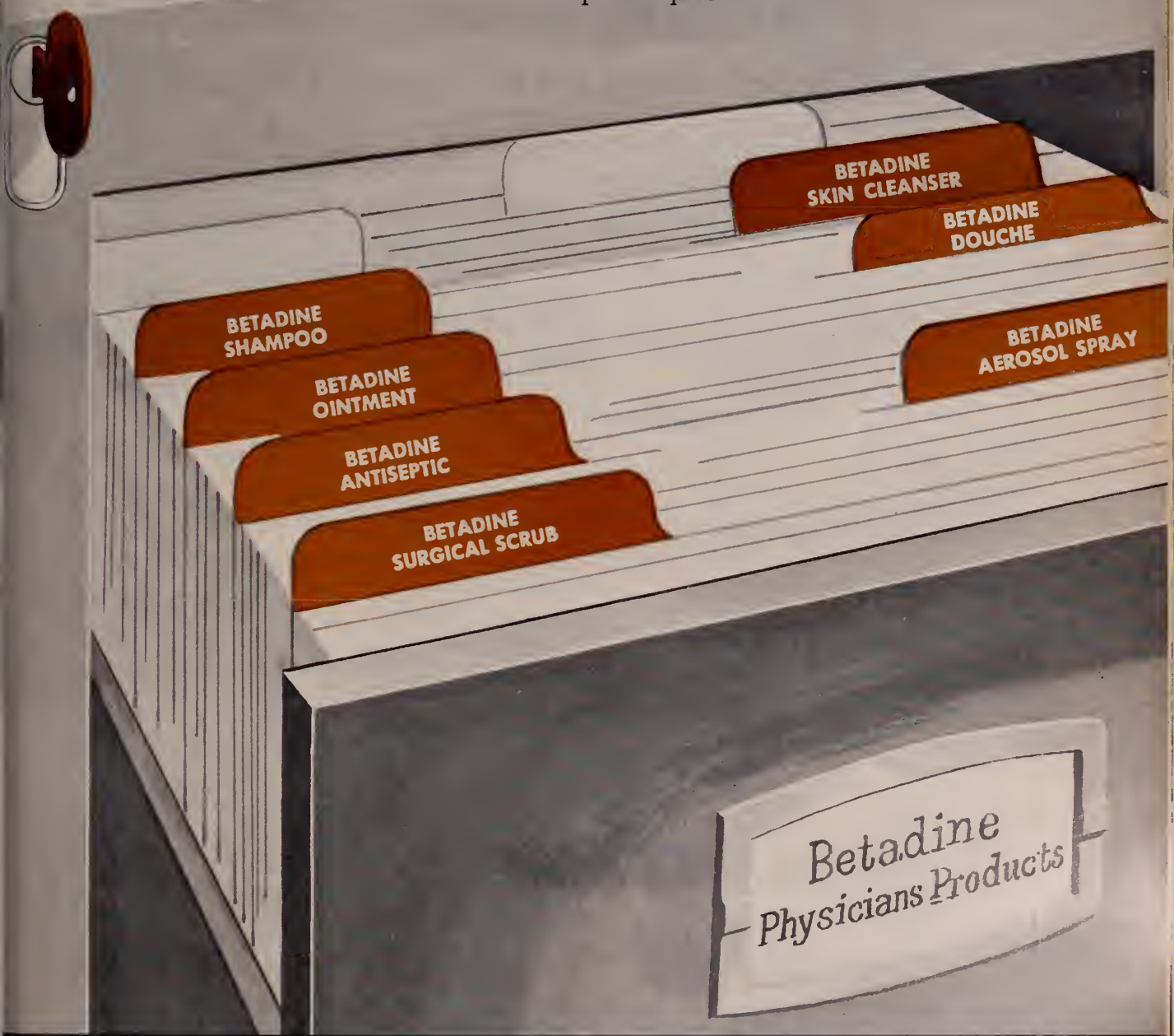
Wallace Laboratories, Cranbury, New Jersey

Betadine®
povidone-iodine
Products
unlock a wide range of usefulness

Betadine Products, in all seven dosage forms, contain povidone-iodine, a complex of polyvinylpyrrolidone and iodine, providing all the germicidal properties of elemental iodine . . . yet Betadine (povidone-iodine) is nonirritating, nonsensitizing, and nontoxic to skin or mucosa.

Betadine Products are effective in preventing and treating a variety of infections frequently encountered in the practice of otolaryngology, orthopedics and orthopedic surgery, obstetrics and gynecology, oral surgery, pediatrics, surgery and dermatology.

The clinical results reported under various conditions of use make Betadine (povidone-iodine) preparations valuable adjuncts both in the hospital and in private practice. Literature available upon request.



PHYSICIANS PRODUCTS CO., INC.
PETERSBURG, VIRGINIA

there is nothing "new" about Thorazine®



brand of
chlorpromazine

In the nine years since it became available to American physicians, Thorazine (chlorpromazine, SK&F) has been more widely used, more thoroughly investigated and more extensively documented than any other agent of its type.

Its actions, effects—and side effects—are well known throughout the medical profession. Its efficacy has been clearly demonstrated. And when properly used, its advantages far outweigh any possible disadvantages.

This is why there is nothing "new" about Thorazine (chlorpromazine, SK&F). This is why it remains the first choice in many conditions—and the standard against which other agents are inevitably compared.

This is why it is one of the fundamental drugs in medicine.

SMITH KLINE & FRENCH
LABORATORIES, PHILADELPHIA

SK&F



In Sprains, Strains and Muscle Spasm, 'Soma' Compound

numbs the pain...not the patient

A potent analgesic and
a superior muscle relaxant

1. A sprain or fracture is not a big clinical problem—but it does hurt. And if there is housework to do and kids to mind, the patient needs something to numb the pain.

2. A.P.C. compounds have limited usefulness; and the patient can buy them without your prescription. Unfortunately, most of them are too mild to be effective for sprains—and more potent products too often make the patient feel 'dopey'.

3. 'Soma' Compound is ideal in these cases. Since it contains both 'Soma' (carisoprodol) and acetophenetidin it is both a potent analgesic and a superior muscle relaxant; it also contains caffeine to offset any drowsiness *("numbs the pain...not the patient")*.

4. Why not try 'Soma' Compound? Dosage is 1 or 2 tablets q.i.d. For more severe pain, try 'Soma' Compound + Codeine. Dosage: 1 or 2 tablets q.i.d.

5. Hypersensitivity to carisoprodol may occur rarely. Codeine may produce addiction, nausea, vomiting, constipation or miosis.

Soma® Compound

carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg.

Soma® Compound + Codeine

carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg., codeine phosphate 16 mg. (Warning—may be habit forming.)

®WALLACE LABORATORIES / *Cranbury, N.J.*

CSO-9193

reduce or obviate the need for transfusions and their attendant dangers

KOAGAMIN is indicated whenever capillary or venous bleeding presents a problem.

KOAGAMIN has an outstanding safety record -- in 25 years of use no report of an untoward reaction has been received; however, it should be used with care on patients with a predisposition to thrombosis.



KOAGAMIN®

parenteral hemostat

Each cc contains: 5 mg. oxalic acid, 2.5 mg. malonic acid, phenal 0.25%; sodium carbonate as buffer.

Complete data with each 10cc vial. Therapy chart on request.

Chatham CHATHAM PHARMACEUTICALS, INC.
Newark 2, New Jersey
Distributed in Canada by Austin Laboratories, Ltd. • Paris, Ontario



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN
Branch Offices: New York • Chicago • Atlanta • Las Angeles
Dealers in all principal cities
KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.



Robaxin®
(methocarbamol, Robins)

U. S. pat. no. 2,770,649

ROBAXIN (methocarbamol) relaxes painful skeletal muscle spasm without impairment of normal muscle strength or neuromuscular function.

Side effects, such as lightheadedness, dizziness, drowsiness, and nausea, may occur rarely, but usually disappear when dosage is reduced. Hypersensitivity reactions have been reported infrequently. Contraindicated in patients hypersensitive to the drug.

Average adult dose

	ROBAXIN® (methocarbamol, 500 mg./tab.)	ROBAXIN®-750 (methocarbamol, 750 mg./tab.)
Initially	3 tablets q.i.d.	2 tablets q.i.d.
Maintenance	2 tablets q.i.d.	1 tablet q.4 h. or 2 tablets t.i.d.

A. H. ROBINS CO., INC., Richmond 20, Virginia


There's nothing like a vacation*
for relaxing stress-induced smooth muscle spasm...

Donnatal

Robins

In each Tablet, Capsule or 5 cc. Elixir		In each Extentab
0.1037 mg.	hyoscyamine sulfate	0.3111 mg.
0.0194 mg.	atropine sulfate	0.0582 mg.
0.0065 mg.	hyoscine hydrobromide	0.0195 mg.
16.2 mg. (¼ gr.)	phenobarbital (¾ gr.)	48.6 mg.

(Warning: May be habit forming)

Prescribed by more physicians than any other antispasmodic—*well over 5 billion doses!*

A. H. ROBINS CO., INC., Richmond 20, Virginia

This one at Spirit Lake, Washington.

Outstanding effectiveness in clinical usage—plus freedom from the risk of serious side effects—are the compelling reasons why DONNATAL has maintained its pre-eminent position as a smooth muscle relaxant through the years.

Over 5 billion doses have been administered since its introduction...impressive evidence of professional confidence in the clinically reported benefits provided by DONNATAL:

- excellent results in a wide range of visceral disorders[1-6]
- well tolerated[1-6]
- convenient dosage forms[1,3]
- uniform composition[1,3]
- stability[1,3]
- economy[1,3]

DONNATAL is indicated in recurring, persistent or chronic visceral spasm, as in: peptic ulcer, pylorospasm, irritable stomach and colon, nervous indigestion, dysmenorrhea, nausea of pregnancy, motion sickness, nocturnal enuresis, mucous colitis and diarrhea.

No serious toxic reactions are to be anticipated. Dryness of the mouth, blurred vision, difficult urination, and flushing and dryness of the skin may occur with excessive and prolonged dosage, but promptly disappear with reduction in dosage.

DONNATAL is contraindicated in acute glaucoma, advanced hepatic or renal disease, and known or suspected idiosyncrasy to any of its components. Patients with incipient glaucoma or urinary bladder neck obstruction must be treated with care, as with any preparation containing a parasympathetic depressant.

REFERENCES: **1.** Barden, F.W., Hill, P.S., Mahaney, W.F., and Cuneo, K.J.: J. Maine M.A. 45:11, 1954. **2.** Chaput, Y., and Baillargeon, J.: L'Union med. du Can. 86:205, 1957. **3.** Hock, C.W.: Clin. Med. 8:1932, 1961. **4.** Kilstein, R.I.: Rev. Gastroenterol. 14:171, 1947. **5.** Marks, L.: Am. J. Gastroenterol. 27:180, 1957. **6.** Wharton, G.K., Balfour, D.C., Jr., and Osmon, K.L.: Postgrad. Med. 21:406, 1957.

Tennessee Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

Underwritten By

Commercial Insurance Company

Newark, New Jersey

PAPAIN IS THE KEY

to complete, thorough vaginal cleansing

Meta Cine®

mucolytic, acidifying, physiologic vaginal douche

The papain content of Meta Cine is the key reason why it effects such complete cleansing of the vaginal vault. Papain is a *natural* digestant, and is capable of rendering soluble from 200-300 times its weight of coagulated egg albumin. In the vagina, papain serves to dissolve mucus plugs and coagulum.

Meta Cine also contains lactose—to promote growth of desirable Doderlein bacilli—and methyl salicylate, eucalyptol, menthol and chlorothymol, to stimulate both circulation and normal protective vaginal secretions. Meta Cine's pleasant, deodorizing, *non-medicinal* fragrance will meet your patients' esthetic demands.

Supplied in 4 oz. and 8 oz. containers, and in boxes of 30 individual-dose packets. Dosage: 2 teaspoonfuls, or contents of 1 packet, in 2 quarts of warm water.



BRAYTEN

BRAYTEN PHARMACEUTICAL COMPANY *Chattanooga 9, Tennessee*

Lifts depression.



"I feel like my old self again!" Thanks to your balanced therapy with 'Deprol', her depression has lifted and her mood has brightened – while her anxiety and tension have been calmed. She sleeps better, eats better, and normal drive and interest have replaced her emotional fatigue.

as it calms anxiety

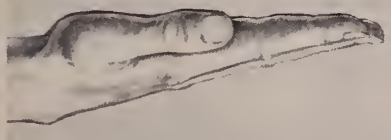
Brightens mood...relaxes tension

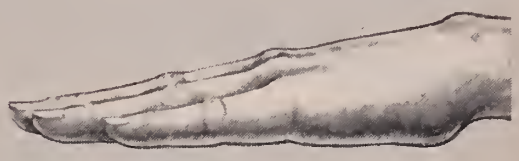
Energizers may stimulate the depressed patient, but they often aggravate anxiety and insomnia. Tranquilizers may help the anxious patient, but they often deepen depression and emotional fatigue.

'Deprol' avoids these "seesaw" effects; it relieves both depression and anxiety. Moreover, it does not cause liver damage, psychotic reactions or changes in sexual function.

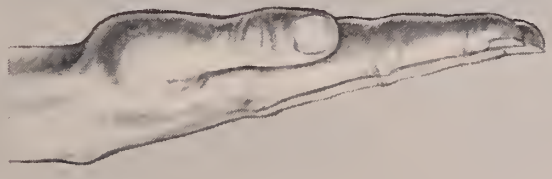
Slight drowsiness and, rarely, allergic reactions, due to meprobamate, and occasional dizziness or feeling of depersonalization in higher dosage, due to benactyzine, may occur. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.

Energizers relieve depression





'Deprol' both lifts depression and calms anxiety





Tranquilizers reduce anxiety

Usual Dosage: 1 tablet q.i.d. May be increased gradually, as needed, to 3 tablets q.i.d.; with establishment of relief, may be reduced gradually to maintenance levels.

▲Deprol▲®

meprobamate 400 mg.
+ benactyzine 1 mg.

WALLACE LABORATORIES / *Cranbury, N.J.*

CO-9250

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

WHO PAYS THE OFFICE RENT?

And telephone bill...and utilities...and employee salaries...*if YOU are sick or injured?*

Physicians Mutual Insurance Company (The Doctors' Company) will help pay all of your usual office expenses when you are sick or disabled—if you are the fortunate owner of our new, low-rate Office Overhead Expense Policy.

Premiums are tax deductible, too!

Write today for free information . . without obligation.

PHYSICIANS MUTUAL INSURANCE COMPANY

115 South 42nd St. Omaha 31, Nebraska

For your elderly arthritic patients



AN EFFECTIVE GERIATRIC ANTIARTHRITIC WITH DISTINCTIVE SAFETY FACTORS

safely indicated – even when **OSTEOPOROSIS** is present

PABALATE-SF, which has been found "superior to aspirin in the treatment of chronic rheumatic disorders,"[1] possesses distinctive **Safety Factors** for elderly arthritics, even when osteoporosis is present: (1) its potassium salts cannot contribute to sodium retention; (2) its enteric coating assures gastric tolerance; and (3) it does not produce the serious reactions often noted during therapy with steroids or pyrazolone derivatives.

In each persian-rose enteric-coated tablet: potassium salicylate, 0.3 Gm.; potassium para-aminobenzoate, 0.3 Gm.; ascorbic acid, 50 mg.

1. Ford, R. A., and Blanchard, K. P.: J.-Lancet 78:185, 1958.

Precaution: Occasionally, mild salicylism may occur, but this responds readily to dosage adjustment. In the presence of severe renal impairment, care should be taken to avoid accumulation of salicylate and PABA. Supply: Bottles of 100 and 500 enteric-coated tablets.

Pabalate®-SF

Robins

(the new, convenient way to prescribe Pabalate-Sodium Free)

A. H. ROBINS COMPANY, INC., RICHMOND, VIRGINIA



Protects your angina patient better than vasodilators alone

'Miltrate' contains both pentaerythritol tetranitrate, which dilates the patient's coronary arteries, and meprobamate, which relieves his anxiety about his condition. Thus 'Miltrate' protects your angina patient better than vasodilators alone.

Pentaerythritol tetranitrate may infrequently cause nausea and mild headache, usually transient. Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Like all nitrate-containing drugs, 'Miltrate' should be given with caution in glaucoma.

Dosage: 1 or 2 tablets *before meals* and at bedtime. Individualization required.
Supplied: Bottles of 50 tablets.

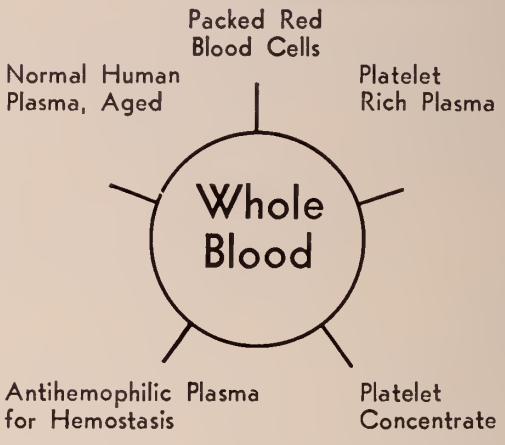
CML-9646

Miltrate®
meprobamate 200 mg.+
pentaerythritol tetranitrate 10 mg.

WALLACE LABORATORIES / *Cranbury, N. J.*

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE



in arthritis: vitamins are therapy

In dealing with the chronic stress of arthritis the physician often faces the problem of nutritional imbalance. High potency B and C supplementation is needed for rapid replenishment of tissue stores of these water-soluble vitamins. STRESSCAPS meet this need and help support the natural metabolic defenses in the disease.

FOR PROFESSIONAL RECOMMENDATION ONLY

Each capsule contains: Vitamin B_1 (Thiamine Mononitrate)...10 mg. / Vitamin B_2 (Riboflavin)...10 mg. / Niacinamide...100 mg. / Vitamin C (Ascorbic Acid)...300 mg. / Vitamin B_6 (Pyridoxine HCl)...2 mg. / Vitamin B_{12} Crystalline...4 mcgm. / Calcium Pantothenate...20 mg. Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

6318-3

STRESSCAPS®

Stress Formula Vitamins Lederle

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY

Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
50/150	84.67	202.61
100/300	92.29	220.83
200/300	96.32	230.48
300/600	112.80	253.20
500/1 Million	132.83	278.85
1 Million/1 Million	139.55	294.93

X-RAY—RADIUM OR SHOCK THERAPY

5/15	89.60	152.00
50/150	169.34	287.28
100/300	184.58	313.12
200/300	192.64	326.80
300/600	213.60	354.00
500/1 Million	237.66	383.68
1 Million/1 Million	251.10	406.48

1. Partnership liability, increase premium for each partner by 20%
2. Anesthesiologists take Physicians rates.
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Other limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability

*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.

Question:

"What is a tranquilaxant?"

Answer:

"A drug that is both a tranquilizer and a muscle relaxant."

TRANCOPAL®
brand of
chlormezanone
is a tranquilaxant

As a tranquilizer, TRANCOPAL (chlormezanone/Winthrop) "is effective in the symptomatic treatment of anxiety."[1] Its tranquilizing properties are similar to those of other mild tranquilizers.[1] Furthermore, it relieves tension of both mind and muscle without interfering with normal activity or alertness.

The muscle relaxant properties[2] of this drug provide an extra dimension of effectiveness...relaxing the spasm which so frequently accompanies psychogenic disorders. Hence, the total therapeutic effect of TRANCOPAL (chlormezanone/Winthrop)—a true "tranquilaxant"—is to produce a relaxed mind in a relaxed body.

Unsurpassed Tolerance: Less than 3 per cent of patients develop side effects with TRANCOPAL (chlormezanone/Winthrop), such as occasional drowsiness, dizziness, flushing, nausea, depression, weakness and drug rash. If severe, medication should be discontinued. In most patients, however, side effects are minor and do not necessitate interruption of treatment. There are no known contraindications.

Available: 200 mg. Caplets® (green colored, scored), 100 mg. Caplets (peach colored, scored), each in bottles of 100.

Dosage: Adults, 1 Caplet (200 mg.) three or four times daily; in some patients 100 mg. three or four times daily suffices. Children (5 to 12 years), from 50 to 100 mg. three or four times daily.

Winthrop
WINTHROP LABORATORIES
New York 18, N.Y.

References: 1. A.M.A. Council on Drugs: J.A.M.A. 183:469 (Feb. 9) 1963. 2. Gruenberg, F.: Curr. Ther. Res. 2:1 (Jan.) 1960.

1783M



We like visitors. We like to show them our modern equipment and latest research facilities, our exacting manufacturing techniques and unexcelled quality standards. Up to a point, that is. A white line provides the barrier that discourages further exploration. It means look but don't cross. It is a safeguard against inadvertent mishandling or misplacing of products—another precaution in an endless list of rules contributing immeasurably to the quality of the finished product.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

390178

Journal of the Tennessee Medical Association
OWNED AND PUBLISHED BY THE ASSOCIATION
Volume 56 AUGUST, 1963 No. 8

Rabies in An Endemic Area and the Value of the Fluorescent Antibody Technique*

LUTHER E. FREDRICKSON, D.V.M., M.P.H.,† Nashville, Tenn.

For many years Tennessee had one of the highest rabies rates in the country. Intensive efforts toward the vaccination of dogs has reduced the rate in these animals to a remarkable degree. The high rate among foxes continues. The use of the fluorescent antibody technic in examination of tissue from animals has simplified diagnosis and made it more accurate and has spared many Tennesseans from antirabies vaccination.

Tennessee probably qualifies as no other state as a rabies endemic area. The disease precedes our present records. Newspaper accounts as far back as 1888 refer to the concern, 75 years ago, of "mad dogs," and of the related human exposures.[1] Hull, in *Diseases of Animals Transmitted to Man*, credits Tennessee with 135 human deaths from 1920 to 1952.[2] This is the largest number of deaths reported for any state in this 33 year period.

Our own records show as many as 11 reported deaths for one year (1926).[3] Twenty-one consecutive years (1924-1944) had a total of 113 deaths, ranging in number from 2 to 11 per year.[4]

Records for animal rabies are incomplete prior to 1946. The first year for which figures are available is the fiscal year 1925-1926.[5] In this 12 month period 960 microscopic examinations were made and 436 were reported positive for the Negri body. An additional 374 confirmatory animal inoculations were made and 206 of these were positive. In this one year 642 instances of animal rabies, confirmed by the laboratory, were reported. Throughout this period 1000 or more animal heads were examined annually with approximately the same proportion of positives. Dogs account for approximately 80% of the examinations throughout this period. Laboratory records for 1941 show 514 positives in 1188 examinations without any indication of the species of animals involved.[6] In all of the foregoing data, however, the disease appears to have been distributed over the entire state.

Annual analysis of the results of laboratory examinations for rabies by species and county was begun in 1946. Consequently, we know that the Tennessee rabies problem was statewide at that time and that dogs constituted the vast majority of the animal heads examined. Approximately 88% of the rabid animals were dogs (755 dogs in a total of 857 in 1947) and from 1 to 2% of the positives were foxes in the late 40's. The fox was the only wild animal species reported and these were limited to middle and east Tennessee.

The continued large number of rabid dogs and the consistent occurrence of human rabies finally resulted in programs of action. The first of these was the mass immunization of dogs in Memphis and Shelby County in 1948.[7] The success of this demonstration encouraged other Tennessee metropolitan areas to institute similar public dog vaccination programs. In 1951 the Tennessee legislature declared the owning or harboring of

*Read at the meeting of the Middle States Branch, American Public Health Association, Grand Rapids, Mich., April 25, 1963.

†From the Tennessee Department of Public Health, Nashville, Tenn.

an unvaccinated dog to be a misdemeanor. The 1953 session of the legislature provided for a Rabies Control Service in the Tennessee Department of Public Health. Statewide programs of antirabies canine vaccination have been held under promotion and sponsorship of local health departments since the enactment of the legislation.

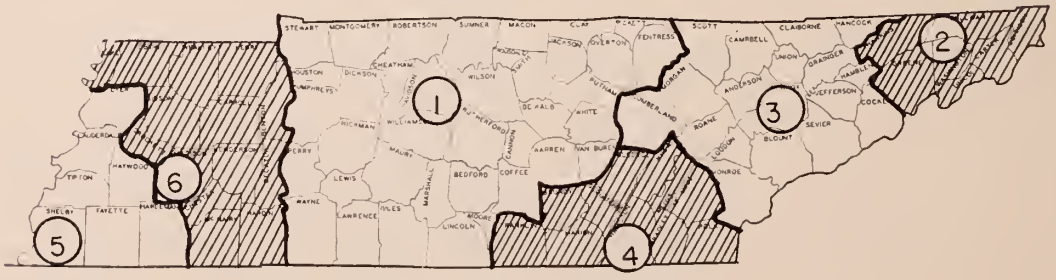
Beginning in the 1950's a noticeable increase in fox rabies occurred confirmed by the laboratory. By 1955, the number of reported cases of canine rabies had decreased and the number of instances of fox rabies increased to the point where they were equal (70 dogs and 70 foxes). Since 1955 canine rabies has been at a relatively low level and the fox has been the most frequently reported rabid animal in Tennessee. Practically all rabid foxes have been reported from the middle and eastern sections of the state.

The program of dog vaccination has been successful in keeping the number of rabid dogs at a low level, even with the reservoir of the infection established in the fox population. This reduction in canine rabies has stopped the human cases. The last death from a rabies exposure in Tennessee occurred in October 1955, when an east Tennessee boy died following a bite by a stray dog. Needless to say many treatments after exposure continue to be given to many victims of animal bites. Since these treatments are not reportable, and the treatments are given in health departments we have no accurate knowledge of the exact number of persons requiring such treatments. We do know, however, that the fluorescent antibody examination of specimens that are negative on a direct examination has spared many individuals the cost, pain, mental anguish, and hazards of the antirabic treatment.

The Division of Laboratories of the Tennessee Department of Public Health began a study of the *Fluorescent Rabies Antibody* procedure in December 1959. At that time all specimens negative on direct microscopy and with an associated human exposure, were tested simultaneously at the Central Laboratory by animal inoculation and the FRA technic. All reports were made on the basis of the results of animal inoculation. This study continued until July 1960. Approximately 160 specimens were subjected to the dual procedure. The results of this study assured the laboratory of the relative reliability of the FRA procedure. Subsequently, the animal inoculation test was dropped by the Central Laboratory on all but decomposing tissues. Examinations by animal inoculation continue on these specimens.

A system of introducing the FRA procedure into the 5 branch laboratories was developed. (Fig. 1.) A qualified technician from each branch laboratory was trained at the Central Laboratory. After this training in the Nashville laboratory, the technician returned to the branch laboratory and began examining all direct microscopy slides negative by the FRA technic from human

LOCATION OF TENNESSEE DEPARTMENT OF PUBLIC HEALTH LABORATORIES WITH AREA EACH SERVICES



DIVISION BETWEEN LABORATORY AREAS

1. CENTRAL LABORATORY (Nashville)
2. JOHNSON CITY BRANCH
3. KNOXVILLE BRANCH
4. CHATTANOOGA BRANCH
5. MEMPHIS BRANCH
6. JACKSON BRANCH

FIG. 1.

cases of exposure. His report together with tissue for an animal inoculation test was sent to the Central Laboratory at Nashville. The results of the animal inoculation was the basis for the final report on the specimen during this probationary period. This supervision continued until the Central Laboratory was assured of the technician's competency. When this checking procedure was completed the technician in the branch laboratory was authorized to make the final report. A system of training within the branch laboratory develops additional technicians capable of carrying on the FRA examinations. Supervision of the procedure at the branch laboratory continues by the periodic submission of stained and unstained slides to the Central Laboratory for reading. Likewise, at intervals, the Central Laboratory sends material to the branch laboratory for reading.

This system of training has extended the FRA technic to all of the five branch laboratories of the state health department. The laboratories in the areas reporting the largest number of cases of animal rabies were given priority in the training program. All laboratory examinations for rabies in Tennessee are conducted by the State Department of Health Laboratories.

This system of FRA examination for negative direct microscopic slides when human exposures are reported has spared many Tennesseans from the cost, pain, and hazards of antirabic treatment. In addition it has given reassurance to many individuals who would normally suffer the mental anguish from the uncertainty of a rabies exposure. In a rabies endemic area, the decrease from 21 days for an animal inoculation test result to 3 days for an FRA report reduced the number of cases requiring antirabic treatment.

References

1. Memphis Commercial Appeal of March 12, 1888, cited in News of Bygone Years, March 12, 1963.

2. Hull, T. G.: Diseases Transmitted from Animals to Man. 4th ed. (1955) Charles C. Thomas, Springfield, p. 265.

3. Tennessee Vital Statistics, Annual Bulletin, 1940, Tennessee Department of Public Health, Nashville.

4. Tennessee Vital Statistics, Annual Bulletin, 1944, Tennessee Department of Public Health, Nashville.

5. Biannual Report of the Department of Public Health, State of Tennessee, for the Fiscal Years 1925-1926.

6. Report, Division of Laboratories, Tennessee Department of Public Health, Fiscal Years 1940-1941; Fiscal Years 1941-1942.

7. Tierkel, E., Graves, L., Tuggle, H. and Wadley, S.: Effective Control of an Outbreak of Rabies in Memphis and Shelby County, Tennessee A.J.P.H., 40:1084.

The author outlines the technic he prefers in the surgical treatment of hemorrhoids, to avoid postoperative complications and the avoidance of postoperative pain.

Recent Trends in the Treatment of Hemorrhoids*

G. TURNER HOWARD, JR., M.D., Knoxville, Tenn.

Hemorrhoids have plagued mankind since history began, probably originating at the time man assumed the upright position. Indeed, the modern technics of hemorrhoidectomy are based on the principles first taught by Hippocrates.[1]

Hemorrhoids are venous dilations or varicosities formed in either or both the internal and external hemorrhoidal venous plexuses. The external plexus lies beneath the skin of the perianal region and beneath the transitional squamous epithelium of the anal canal and on the underlying sphincteric musculature. The internal plexus lies in the submucosal area above the pectinate line and is covered by columnar epithelium. The internal and external hemorrhoids are joined by way of veins lying beneath the anorectal mucosa. The innervation above the pectinate line is visceral and that below it is somatic from the pudendal nerves.[2]

Although physicians have treated hemorrhoids since the time of Hippocrates, numerous different approaches have been advocated, all with varying degrees of success and varying degrees of undesirable sequelae. Historically, surgical procedures have been accompanied by rather severe pain and discomfort because of the rich nerve supply of the anus and the likelihood of infection developing in wounds in this area.

Of recent date there have been fewer procedures advocated in which there is a circumferential or amputative radical removal of hemorrhoids because such procedures are sometimes followed by painful stenosis.[3] There may be times when the radical hemorrhoidectomy is of value[4] but many surgeons have discovered the great importance of leaving normal mucosa between each excised group of hemorrhoids to prevent stricture.[2]

Since rectal surgery has the reputation of being exceptionally painful, thousands treat themselves or seek some sort of relief from all kinds of charlatans. Consequently there has been an effort in some quarters to eliminate the pain and most of the discomfort following operation by the injection of a safe, effective and long lasting anesthetic substance in the perianal tissue.[5] The avoidance of infection or unnecessary open raw areas are added features in promoting postoperative comfort and good function.

Conservative treatment also has a certain field of usefulness in the management of hemorrhoidal disease. Operative treatment for hemorrhoids should be considered only when the condition has progressed to a point where there is interference with the comfort, health or livelihood of the patient.[6] Hemorrhoids are a very common finding in most physical examinations. The minor pathologic changes, in most instances give the patient little or no discomfort and will require no active treatment. The mere presence of hemorrhoids is not necessarily an indication for their removal.

Although there are some who are successful in the injection of sclerosing solutions into symptomatic internal hemorrhoids, there has been a trend away from this type of treatment and many believe that if hemorrhoids are advanced enough to cause appreciable symptoms, they will respond best to surgical excision.

Hemorrhoidectomy

A good hemorrhoidectomy is one that removes all internal and external hemorrhoids and destroys the anal crypts. It

*Read at the Annual Meeting of the Tennessee State Medical Association, April 10, 1963, Knoxville, Tenn.

From the Executive Director

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Highlights of the Meeting of the Board of Trustees

Trustees Quarterly Meeting—July 21st

● The Board of Trustees met in Nashville on Sunday, July 21st. The following are highlights of business conducted in the session.

The Board named Dr. Carson Taylor, Lawrenceburg, a member from the state at large on the Communications and Public Service Committee. Dr. Aubrey Harwell, Nashville, was appointed as a member of the Committee on Implementation of the Kerr-Mills Program in Tennessee.

New Seal Approved

● In keeping with action of the House of Delegates in April, 1963, the Board approved an official seal of the Association.

Report from Chairman Of the Council

● Dr. Francis Cole, Chairman, reported actions of the Council. Representatives of Anesthesiology, Radiology and Pathology met with the Council on July 20th for discussion on the subject of corporate practice. The Council requested the Board of Trustees to seek an opinion from the Attorney General on the legal definition of the practice of medicine, particularly to determine the question of whether diagnostic pathology and radiology is covered in the definition of the practice of medicine as it is now contained in the State Law.

It is unethical for a physician to practice in a hospital without being a member of the medical staff of that hospital, and it had come to the attention of the Council that there are Radiologists and Pathologists working in hospitals of the state without being members of the staff. It is the responsibility of the Council to determine such problems and their disposition. It was stated that each Councilor will transmit to each medical society in his district, the aims and implications of the report.

Report from the President

● Dr. Bland Cannon reported concerning the article on disagreements between hospitals and doctors that appeared in the press throughout the state. He gave the steps taken to obtain additional information relative to this release, however no substantiating facts were obtained. The Board commended the President for the handling of this very difficult news story.

Expansion of MAA Program

● The President continued his report summing up the actions taken in meeting with the Governor and various Commissioners of the State Government and results obtained in the fourth expansion of the Medical Assistance to the Aged Program in Tennessee. He also commented upon issues discussed in a television program in Nashville entitled, "Eye On The Issues."

● Dr. K. M. Kressenberg reported the purposes of the newly formed Committee on Implementation of the Kerr-Mills Program, pointing out that the committee's efforts would be directed to: (1) present complete and thorough information

about the Kerr-Mills Program to the medical profession of the state; (2) inform congressmen and senators about the program, furnishing them with regular progress reports; (3)discuss with the Department of Public Welfare, the matter of physicians' fees since they are not included in the state program; (4) prepare an all-inclusive brochure in order that physicians will have one publication listing all information pertaining to state and federal supported health programs available in the state; (5) petition the Department of Public Welfare to conduct workshops throughout the state in order to inform and educate county welfare agency personnel, physicians and the public.

Public Service Committee Report

● The Communications and Public Service Committee reported on three major activities. They were: Operation Hometown, Sabin Oral Vaccine Program, and Current Editorial Opinion Over the State.

Relative to Operation Hometown, meetings had been conducted in twelve of fifteen key cities across the state. Concerning the Sabin Vaccine Program, the report indicated the areas where county societies have planned to conduct immunization programs and those areas where studies were underway but no dates yet decided, and county societies not planning to conduct community-wide programs.

News Comments

● The report showed that most newspapers across the state were favorable to medicine's position and press relations made by the Tennessee Medical Association. The Nashville Tennessean was the only major daily newspaper currently writing with determined opposition to the profession and its program.

IMPACT

● (Independent Medicine's Political Action Committee—Tennessee). The status of IMPACT was discussed. It was believed by the Board that Tennessee IMPACT was not obtaining the desired results. This matter was presented by Dr. Nesbitt, Chairman of the Legislative Committee and Dr. Caudill, a member of the Board.

Annual Meeting Scientific Program

● Dr. R. H. Kampmeier reviewed the proposed scientific program for 1964, pointing out that the specialty societies official programs would constitute the scientific program of the Tennessee Medical Association and if the Board so approved, the general scientific sessions previously conducted would not be continued in 1964.

The Board approved that the proposal submitted by Dr. Kampmeier should compose the format of the 1964 program and such action was adopted.

Other Actions

● In other actions, the Board studied and approved the second quarter financial statement—Appropriated $500 for conducting the Rural Health Conference to be held in the Fall of 1963—Heard a summarized report made by Dr. Nesbitt, Chairman of the Committee on Legislation and Public Policy, pertaining to the testimony prepared to present as a statement before the Ways and Means Committee on H.R. 3920, at such time that hearings will be conducted on the King-Anderson Bill—Informed about the Tennessee Legislative Council Committee inviting representatives of TMA to testify before the Council on House Joint Resolution No. 26 dealing with blood banks and laboratories.

Medicare Claims Paid

● The Tennessee Hospital Service Association, the fiscal agent for administering the Dependents' Medical Care Program of the Armed Forces (Medicare) reports that from January through June, 1963, 3,608 Medicare cases were processed, representing a total payment of $375,696.05 made to physicians.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

Dr. Cannon Appears On Nashville TV

● Dr. Bland W. Cannon appeared on WSIX-TV's Sunday afternoon television program, "Eye on the Issues," July 21. The program, a panel "meet the press" type of show, had as its topic "The Changing Aspects of Medical Care." Dr. Cannon was questioned by three newspaper reporters representing the Nashville Banner, the Nashville Tennessean, and the Memphis Commercial-Appeal. Most frequent questions concerned the MAA (Kerr-Mills) program in Tennessee and the current King-Anderson legislation. Dr. Cannon was most effective in presenting the medical profession's views on these topics as well as other aspects of the medical profession, and the program was well received.

Dr. Edward R. Annis Schedules Visit

● The President of the American Medical Association, Dr. Edward R. Annis of Miami, Florida, will visit Nashville August 16-17 for several speeches and appearances. Dr. Annis will deliver the commencement address at the David Lipscomb College graduation August 17, the main purpose of his visit. While in Nashville however, several television, radio, and press interviews have been scheduled. Dr. Annis will appear on the same television program as did Dr. Cannon, WSIX-TV's "Eye on the Issues: and will be interviewed on WLAC radio. A press conference will be held at TMA headquarters for newspaper, television, and radio interviews. Dr. Annis will also address the Kiwanis Club.

Congressmen Poll Constituents on K-A

● The results of two more polls taken by congressmen on King-Anderson legislation show continued opposition to the legislation. Representative John Slack (D) of West Virginia reported 58% of his responses to 50,000 questionnaires opposed medical care under social security. Recently, Representative Bruce Alger (R) of Texas reported 93% opposition to King-Anderson legislation with 2% who had no opinion. 70% favored no Federal participation.

Krebiozen Still In the News

● Senator Estes Kefauver is one of thirteen senators and congressmen who endorsed a resolution by Senator Paul Douglas of Illinois calling for the National Institute of Health to undertake a fair, impartial and control test, under the direction of competent clinical investigators, of the safety and efficacy of Krebiozen. S.J. Resolution 101 further provides that the FDA would be directed to withhold any action on a new drug application for Krebiozen until the NIH completes its test.

Current in Congress

● The Clean Air Act passed the house by a vote of 272 to 102. The act allots $103 million over a four-year-period for anti-pollution activity. The bill now goes to the Senate. . . . The Keogh Law (H.R. 10) was scheduled for hearings in early August. The Keogh-Smathers Law permits the self-employed to contribute to a self-retirement plan and it is anticipated that the involved regulations will require lengthy hearings. . . . The House passed by voice vote H.R. 134 to provide that seat belts sold or shipped in interstate commerce for use in motor vehicles shall meet certain safety standards.

THE PASSING SCENE

by Harry Chapman
Aesop's Fables for Modern Young Readers:
The Ant and the Grasshopper

One hot summer day the Ant was busily reaping grain and storing it in his house in preparation for the winter. The Grasshopper came chirping and dancing along the road. He was playing his guitar and singing the rock'n roll hit song "I Don't Mind You Kissing Me, But Give Me Back My Bubble Gum."

As he went by, the Ant said, "Grasshopper, you dance and sing all day. You neglect the virtues of industriousness and thrift. When the cold winter comes you will be cold and hungry." The Grasshopper looked at him with amused pity and said, "Ant, you are a poor dumb square. Man, get with it. You're behind the times. Live it up. That sort of stuff went out with your grandmother's bonnet." The Ant sadly shook his head and returned to his work. The Grasshopper hurried off to a jam session.

November came and the cold winds blew. As Ant predicted, Grasshopper had a problem now. However, the course of events ran contrary to Ant's prediction. Grasshopper's dilemma resulted in passage of the Grasshopper Rehabilitation and Relief Act. In order to pay for this new taxation, Ant's taxes were raised. Poor Ant was now in a jam. In order to meet the new taxes, Ant had to take in roomers and serve meals. His first applicant for room and board was Grasshopper, who paid for it with his regular weekly check from the Grasshopper Rehabilitation Administration.

Poor Ant's problems increased. Grasshopper had several of his friends in every night for a rock'n roll session and Ant had to tend bar to make enough money to keep up with the new tax payments.

Then Grasshopper struck it rich. He wrote a smash rock'n roll hit song for middle aged adolescents. It was called "Come to Me My Menopausal Baby."

Grasshopper hired Ant to help him answer his fan mail. Ant's situation went from bad to worse and he finally had to sell the house and his reserve grain supply to Grasshopper in order to keep up with the midwinter assessment to support the welfare program for destitute fireflies and water beetles.

One day Grasshopper said to Ant, "Ant, I'm afraid you're going to have to move into the basement. We're turning your room into my campaign office. I've become such a national figure that I'm going into politics. I'm running for congress."

This was too much for poor Ant. He had a complete nervous breakdown. As they hauled him off to the Psychiatric Receiving Center he was clutching his Barry Goldwater pin and muttering something delirious about the Gettysburg Address. Poor Ant was never the same again. Though he recovered, he ended up as Grasshopper's yard man and spent the rest of his unfortunate life eradicating dandelions in Grasshopper's back yard.

Moral: Get with it, kids. Live it up. Don't be a square.

(Reprinted from the Jackson County Medical Journal, Kansas City, Missouri)

should leave a minimal amount of scarring of the anal canal and should leave the anal orifice large enough for normal bowel movements without pain or discomfort. It should leave the patient with good sphincter control and no stenosis.

The same sound surgical principles adhered to in other fields should apply equally in rectal surgery. Such procedures as using actual cautery, with its subsequent slough of tissue, the application of clamps to tissue not to be excised, the excision of large amounts of normal tissue with resultant painful stenosis, and the use of rectal packs, spools or "whistles" are among the common causes of a long and very painful postoperative course.

The anal canal is normally an empty passage when at rest, and when a foreign body is inserted into it there is constant spasm in an effort to pass the "artificial stool," which causes excruciating pain when this sensitive area is in a raw postoperative state.

The use of anesthetic ointments is apt to give very little and transient relief at best, and may delay wound healing. Raw surfaces and swelling produce pain, and every effort to reduce both is essential to a comfortable postoperative period.

To relieve the spasm and resultant pain some have advocated the intramuscular injection of tubocurarine chloride.[7] However, this procedure reduces the narcotic requirements only slightly and has been found to have undesirable side-effects, such as diplopia and severe muscular weakness. Various long lasting anesthetic agents have been injected into the very sensitive perianal tissue to minimize or eliminate the severe pain that ordinarily accompanies hemorrhoidectomy. Many have proven ineffective, or may become the causative agents for undesirable complications such as slough, abscesses or fistulas. On the other hand, we have found the proper injection of a solution of procaine, butamben picrate (Butesin) and benzyl alcohol in peanut oil to be exceptionally effective, safe and free from the complications described above.

I firmly believe that every patient should have a sigmoidoscopic examination before hemorrhoidectomy is performed. This may be done in the office before hospitalization or, as in so many cases where there is considerable pain and soreness, it is easier to do it just prior to the operation under anesthesia. Many polyps have been discovered in this manner and an appreciable number of early unsuspected carcinomas have been diagnosed.

Operative Procedure

A high cleansing soapsuds enema is given the night of admission to the hospital and repeated two hours before operation to be followed by a Fleet's enema. The patient is usually given a general anesthetic but may be given a low spinal or caudal anesthesia if preferred. Usually the choice of anesthesia is left to the patient and the anesthesiologist.

The patient is placed in the lithotomy position because of its advantage from the standpoint of anesthesia. Also, the skin over the ischiorectal fossa and the perianal region is thereby stretched, making for easier exposure and less retraction. The hemorrhoids do not become drained of blood and fall inside in this position.

After the sigmoidoscopic examination is done the patient is prepared and draped. The rectum is dilated to four fingers, not only to allow better exposure, but to cause a certain amount of muscle stretching which minimizes sphincter spasm that is so painful after operation (Fig. 1). The rectum is inspected carefully with the aid of a bivalve

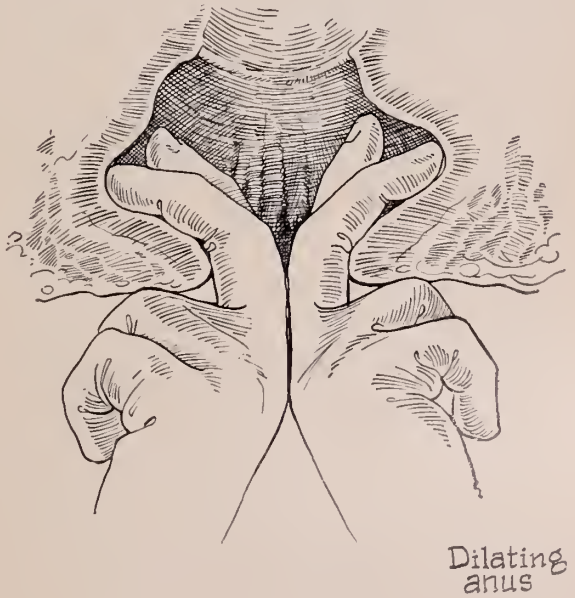


Fig. 1

speculum to plan the approach. The hemorrhoids fall into three groups, and it is important to leave a complete bridge of skin and mucosa between each excised hemorrhoidal mass.

With the Sims retractor, good exposure of each of the three hemorrhoidal groups is obtained in turn. The internal and external hemorrhoids are each grasped with an Allis clamp. A suture of #0 gastrointestinal catgut is taken through the mucosa around the hemorrhoidal vein above the internal hemorrhoid (Fig. 2,A). A V-shaped incision

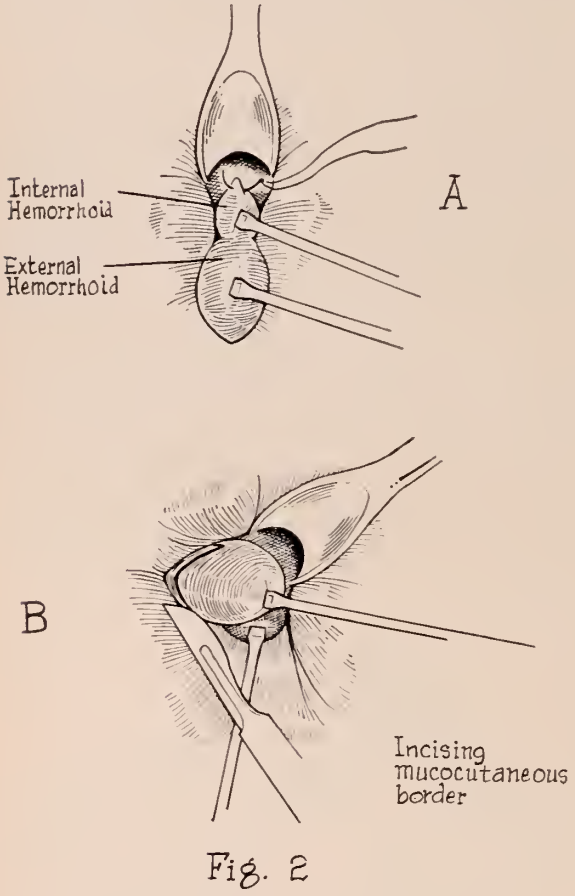


Fig. 2

is made at the base of the external hemorrhoid and the dissection is carried upward. The pedicle is then clamped and both internal and external hemorrhoids are excised above the clamp (Fig. 3,A). Raw surfaces in the sensitive anal region are prevented by a loose over and over suture of catgut to bring together the edges of skin and mucosa, leaving some room for drainage (Fig. 3,B).

The anal region is again carefully prepared with an antiseptic solution. A small

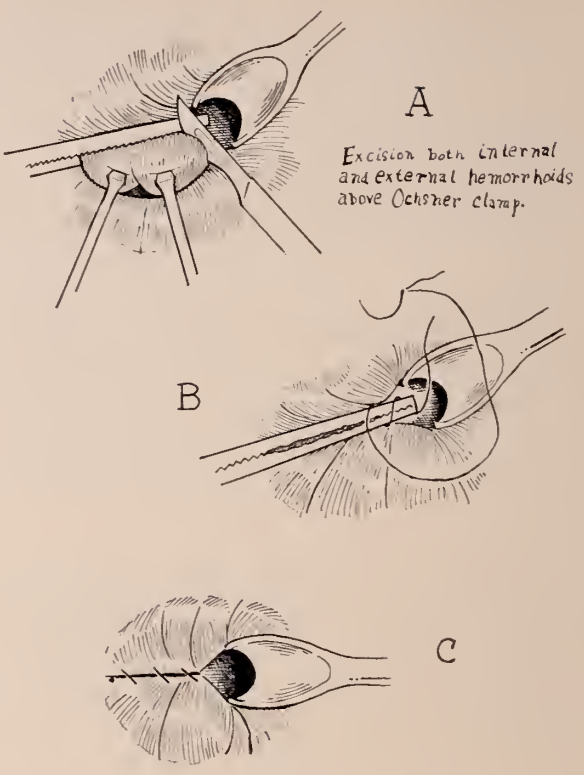


Fig. 3

piece of gauze is temporarily placed into the rectum while the perianal injection of a long lasting anesthetic agent is done. Twelve cubic centimeters of solution is usually employed. Each cubic centimeter contains a procaine base of 15 mg., butamben picrate 60 mg., with benzyl alcohol 50 mg. in peanut oil (Zyljectin). Care must be taken not to make the injection superficially or to pool the solution. In my experience, the effects last 5 to 8 days and most of the patients so treated require no hypodermic injections of narcotics for pain. Few require codeine by mouth. When the effect of the local anesthetic wears off the rectum has healed enough so there is no pain. The patient is usually sent home on the third postoperative day.

Postoperative Management

Proper postoperative care is very important for the patient's comfort and quick healing. No pack or foreign body is left in the anal canal. However, a pressure dressing is applied for 3 hours. After 3 hours the dressing is changed and the patient is started on constant warm wet boric acid solution compresses to be changed 3 times a day.

The patient is allowed up to void on the day of operation, and full ambulation is encouraged the first postoperative day. A full liquid diet is given when tolerated. On the first postoperative day the patient is started on hot sitz baths 3 times a day. One dram of paregoric is given 3 times a day to slow down peristalsis. This is not essential but keeps the urge to have a stool from occurring until the third postoperative day when the drug is discontinued, and 3 ounces of warm oil are injected into the rectum through a catheter. This is followed in one-half an hour by a soapsuds enema.

One ounce of mineral oil is given orally twice daily starting on the evening of the second postoperative day. A regular diet is begun on the morning of the third day. Some broad spectrum antibiotic is given because of the potential infection around the rectum. No digital examination is done before the patient returns for a checkup examination one week after discharge from the hospital.

When the patient leaves the hospital he is instructed to continue mineral oil twice daily to regulate his bowels to one or two soft movements per day. Hot sitz baths are continued until all soreness is gone.

Results

The above technic has been used in the treatment of 552 consecutive cases of hemorrhoids. It has been unusual to have patients complain of pain. Of course individual thresholds for pain vary greatly and some patients will feel the need for narcotics. This is usually only on the day of operation and commonly while the patients are semiconscious from the general anesthetic. Some nurses are likely to give injections of narcotics to patients thrashing about to quiet them while they are beginning to react from the anesthesia. They are offered morphine sulfate 10 mg. or meperidine (Demerol) 75 mg. every 3 hours if necessary for pain. Some are given 30 mg. of codeine with aspirin 0.6 Gm. by mouth if desired. Only 19% of the 552 patients studied have requested a narcotic for pain. In this series of patients there have been no abscesses, fistulae, loss of bowel control or stenosis. However, there were 4 instances of postoperative hemorrhage requiring transfusion of whole blood. Two had to be returned to surgery to control the bleeding while the other 2 had the bleeding controlled by pressure dressings.

Discussion

There are some who advocate a more radical operation for hemorrhoids patterned after the Whitehead operation, and such procedures may have a place in the surgeon's armanentarium. However, we have not found it necessary to employ the so-called radical amputative operation in any of the 552 consecutive cases studied, a number of whom presented prolapsed, thrombosed, or strangulated hemorrhoids with beginning gangrene. We prefer to avoid this operation because the anal funnel may be ironed out with the mucocutaneous border at the anal verge, causing anal wetness and discomfort with varying degrees of incontinence to stool and gas in an appreciable number of cases. Plastic repair may have to be done when symptoms are sufficiently disturbing. Furthermore, in most cases in which a complete ring of tissue has been removed around the anal opening, painful dilatations are subsequently required. This is avoided when a bridge of normal skin and mucosa is left between each of the three groups of hemorrhoids removed.

We consider the patients with severe, thrombosed, strangulated hemorrhoids as surgical emergencies, and they are therefore taken to the operating room for immediate operation. These patients usually have a most satisfactory convalescence and are extremely grateful because they are completely relieved of their severe pain immediately following operation.

Summary

The objective of an operative approach to hemorrhoids is a cure of the condition with a minimum of complications, a normal functioning anal canal, and very little if any postoperative pain. We believe there is steady progress toward this goal in which there is a trend toward stricter adherence to sound surgical principles, and may be combined with the injection of a safe, effective and long-lasting anesthetic agent in the perianal tissue. A series of 552 consecutive cases of hemorrhoidectomy have been

reported in which 81% of the patients required no injection of narcotics for pain postoperatively.

References

1. Turell, R.: Hemorrhoids: Advances and Retreats, Am. J. Surg. 99:154, 1960.

2. Govostis, M. C.: Hemorrhoidectomy, S. Clin. North America 41:143, 1961.

3. Ferguson, J. A.: Repair of Whitehead Deformity of Man, Surg. Gynec. & Obst. 108:115, 1959.

4. Asman, H. E.: Radical Hemorrhoidectomy, Am. Surgeon 28:324, 1962.

5. Howard, G. T., Jr.: Modern Management of Hemorrhoids, South, M. J. 53:611, 1960.

6. Grodsky, L.: Hemorrhoidal Disease, Med. Times 88:950, 1960.

7. Rovner, H. and Haskell, B.: A Study of a Long Acting Muscle Relaxant (Turbadil) in Anorectal Surgery, Surg. Gynec. & Obst. 108:115, 1959.

PSYCHOLOGIC DISORDERS IN INDUSTRY

I. In dealing with occupational emotional problems the physician should be aware of:
   A. The hazard of the oppressed or oppressive supervisor.
   B. The atrophy of efficiency from coldness on the part of management.
   C. The decapitating effect of public reprimands.
   D. Metastatic spread of lowered morale.
   E. The shackles of conformity.

II. Poor handling of an emotional problem on the part of a physician makes rehabilitation much more difficult. Most physicians feel that they do not have time to handle emotional problems. When we calculate the time wasted in frequent inadequate visits by the patient, it becomes clear that one thorough interview would have actually saved time.

III. Ten per cent of the nation's working force has moderate psychoneurosis. In another 10% the psychoneuroses are severe enough to require psychiatric aid.

IV. Eighty-five per cent of the injuries incurred in industry have a mental or emotional component. Two per cent of the nation's working force is mentally ill.

V. Eighty per cent of all epileptics can be comcompletely controlled with existing drugs. These individuals can be allowed employment based on the recommendation of the family physician and acceptance for employment by management.

Himler, Leonard E.: Emotional Problems in Industry—Recognition and Preventative Measures, Indust. Med. Surg. 30; 131, 1961.

(Committee on Occupational Health—*TMA*.)

The enactment of the law establishing a Medical Examiner System was a great step forward in the modernization of government with respect to unnatural deaths. It was a law long overdue and represented, finally, a successful culmination of a long continued effort of the Tennessee Medical Association.

The Medical Examiner System*

J. T. FRANCISCO, M.D.,† Memphis, Tenn.

In 1961 the Tennessee Legislature passed the Medical Examiner Law which will affect every physician in Tennessee. This law also provided for the death certification of all apparent unnatural deaths in Tennessee. The legislative intent of this law was to provide a scientific basis to detect the unsuspected homicide. A by-product of this law was to remove from *every* physician the responsibility of having to certify the cause of unnatural deaths. It does place the responsibility for the investigation of all such deaths in the hands of the person best qualified to provide such certification—the physician.

We have, as a heritage of our nation's birth, a legal concept of the coroner system which was originally intended as a state appointed official who protected the interest of the Crown. As civilization changed the responsibility of the coroner became more and more a practice of legal medicine. Early in the history of the United States it became obvious that non-medical personnel could not adequately fulfill the demands of this office. Massachusetts was the first state to replace the coroner with a man trained in medicine known as the Medical Examiner. Many states followed, and at present there are many good state systems which permit investigation of all deaths which appear to be unnatural. The Tennessee system is neither perfect nor unique, but it is a great step toward adequate investigation of such deaths.

The Tennessee Law does not abolish the coroner system but supplements it with a Medical Examiner who has equal weight as the coroner in investigating certain deaths, and who has the responsibility of officially certifying the cause and manner of these deaths on the medical examiner's report form. This law provides for:

(1) A Chief Medical Examiner under the State Department of Public Health who has the responsibility of general supervision and education of all persons involved with the law's enforcement.

(2) The authority for each county to appoint a County Medical Examiner who must be a physician.

(3) A defining of the types of death which will be investigated.

(4) The establishing of criteria for the performing of autopsies including who will authorize and who will perform such autopsies.

(5) A method for recording all information gleaned from such investigation and the filing in a central office so data will be available to legally authorized parties.

There are several basic questions about this law which need to be answered such as:

(1) *How is the County Medical Examiner appointed?*

A. Each County Medical Society shall present the names of two (2) or more physicians to the County Quarterly Court. The latter body shall choose one from this list and appoint him as County Medical Examiner.

(2) *What is the relationship between the Medical Examiner and the coroner?*

A. Certain deaths are to be reported to both the coroner and the Medical Examiner, and the body of the deceased shall not be moved or embalmed without the consent of both. The coroner and Medical Examiner must jointly recommend that an autopsy be performed before the District Attorney General may order such autopsy.

(3) *What types of death are reportable?*

A. All deaths which are the result of

*Read at the Annual Meeting of the Tennessee State Medical Association, April 9, 1963, Knoxville, Tenn.

†From the Department of Pathology, University of Tennessee, College of Medicine, Memphis, Tenn.

". . . sudden violence, or by casualty or by suicide, or suddenly when in apparent health, or when found dead, or in prison, or in any suspicious, unusual or unnatural manner, or where the body is to be cremated . . ." shall be reported. This includes all deaths due to trauma, suicides, homicides, anesthetic deaths, sudden unexplained deaths, industrial deaths and all persons found dead without a known, sound medical cause. This includes all deaths due to trauma—*regardless of the time interval* between injury and death.

(4) *Why are these deaths reportable?*

A. It has been ascertained that deaths under these circumstances are most commonly deaths in which a law violation has occurred.

(5) *What types of death are not reportable?*

A. All obvious natural deaths are not reportable.

(6) *Who decides whether a case is obviously natural and not a reportable case?*

A. Usually the attending physician of the deceased makes the decision as to whether the case is a reportable one. It should be emphasized that all doubts should be resolved by reporting the death to the appropriate local authority. Once the death has been reported and all facts clarified, the death may not be acceptable as a Medical Examiner case; but the physician will have satisfied his obligation under the law. However, in many cases it may be obvious to all that the death is not natural; therefore anyone may report such a death.

(7) *What if there is no attending physician?*

A. If there is no attending physician, the funeral director shall present the death certificate to the County Medical Examiner. The case is not to be investigated unless it is a death occurring as prescribed in item 3.

(8) *In which deaths is an autopsy to be done?*

A. All reportable deaths in which there is reason to suspect homicide should lead to autopsy. Many cases will be presented as possible homicide and investigation prove the contrary. The reverse may also occur. The decision as to which case will require an autopsy is the joint responsibility of the coroner and the Medical Examiner. It is well to emphasize that neither the Medical Examiner nor the coroner may order autopsies as this authority resides with the District Attorneys General. It is also to be emphasized that an autopsy may not be ordered simply to clarify the specific cause of death. This phase of the law is the major deficiency, for it places the responsibility of determining cause and manner of death on the Medical Examiner but does not allow him to utilize a major avenue of obtaining this information—the autopsy.

(9) *What is the physician's responsibility in this system?*

A. The responsibilities are two-fold:

(1) to support the aims and to report all cases which fall under the intent of the law, and

(2) to become familiar with the scientific principles of medico-legal investigation and to participate in their own county as a Medical Examiner when needed.

(10) *What training is to be provided for the County Medical Examiners who participate in this system?*

A. The State Department of Public Health in cooperation with the University of Tennessee will sponsor three seminars each year. There will be one in each of the three Grand Divisions of Tennessee. These seminars will be designed to familiarize the physician with the common problems encountered, the common pit-falls which occur, and the recommended procedures to be followed in the investigation of these cases. The State Department will publish a handbook in the fall of 1963 which will cover in some detail the principles of medicolegal investigations. This handbook is now being prepared by the University of Tennessee.

In summary the Medical Examiner System in Tennessee is in its infancy and needs the full support of all physicians. If properly implemented, this system can:

(1) Detect unsuspected homicides.

(2) Protect the health of the community.

(3) Clarify workmen compensation claims.

(4) Provide more accurate death certificates.

(5) Facilitate closer cooperation between medicine and law in the administration of justice.

SIGNIFICANCE AND MANAGEMENT OF ACIDOSIS OCCURRING IN CONJUNCTION WITH CARDIAC RESUSCITATION

E. CONVERSE PEIRCE II, M.D.,*
Knoxville, Tenn.

Cardiac arrest or ventricular fibrillation are acute emergencies all too frequently resulting in death. Prompt application of modern resuscitative measures, especially closed chest cardiac massage and defibrillation by direct current, frequently result in successful restoration of circulation, but many patients still die because of the failure of later supportive treatment. One problem requiring careful management is circulatory failure in the post-resuscitative period which may cause and be aggravated by an inexorably progressive metabolic acidosis.** Unfortunately, most hospitals are not equipped to obtain acid base information quickly or to follow it in these seriously ill patients, although serial acid base determinations are frequently just as important as blood pressure measurements.[1,2]

Cause and Measurement of Metabolic Acidosis

In tissue hypoxia due to a failing circulation there is a rise in intermediary organic acids normally metabolized to carbon dioxide and water. The extent of accumulation of the intermediary acids is a most useful clinical index of the degree of circulatory decompensation (Fig. 1). The recommended

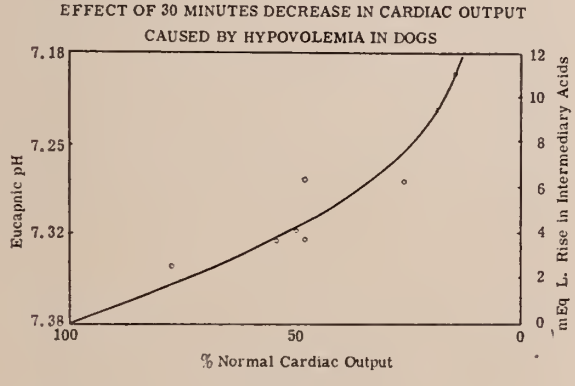


FIG. 1.

measurement is the eucapnic pH, the pH of oxygenated blood at the normal average alveolar CO_2 pressure of 40 mm. It is equivalent to the buffer base and may be used even when hypothermia is employed as a therapeutic adjunct, since it is virtually independent of temperature.

The essential acid base information for management of the resuscitated cardiac patient is provided by serial determinations of two pH values—eucapnic pH and arterial pH. Methods for obtaining these values are described in detail elsewhere.[1,2] Briefly, the arterial pH is read and corrected for the patient's temperature using a standard correction factor. A second portion of the same arterial blood is brought to a pCO_2 of 40 mm. at 37° C. and its pH is measured. This can be done by bubbling an analyzed O_2-CO_2 mixture through the blood sample in a small test tube. A stable micro pH apparatus which can be used at the patient's bedside is most satisfactory.* Determinations require no particular skill and take only a very few minutes. The two pH values are plotted on a simple chart (Fig. 2). No nomogram or calculations are required for interpretation.

(1) Deviation of the eucapnic pH from a normal of 7.42 is a direct quantitative measure of the metabolic abnormality not affected by the temperature of the patient. It may be judged simply as normal, mild, moderate, or severe, 0 to 3, or in terms of mEq per liter.

(2) Failure of respiration to compensate for a metabolic abnormality is indicated by any deviation of the arterial pH (corrected to the patient's temperature) from normal. This is read in terms of normal, mild, moderate, and severe, 0 to 3, or in pH units.

(3) The alveolar CO_2 pressure is indicated by the difference between the arterial pH and the eucapnic pH. When these values are equal, the pCO_2 is 40 mm. Hg. and ventilation is normal. Where the arterial pH is higher than the eucapnic, the pCO_2 will be below 40 mm. Hg. and ventilation is increased. Where the eucapnic pH is higher, the pCO_2 will exceed 40 mm. Hg. and ventilation is decreased. Clinically there is little

*From the East Tennessee Tuberculosis Hospital, Knoxville, Tenn. Supported by U.S.P.H.S. Grant HE-02315.

**Many other aspects of management such as the use of refrigeration or the therapy of renal failure are beyond the scope of this paper.

*Radiometer equipment supplied by The London Company, 3355 Edgecliff Terrace, Cleveland, Ohio, is very satisfactory.

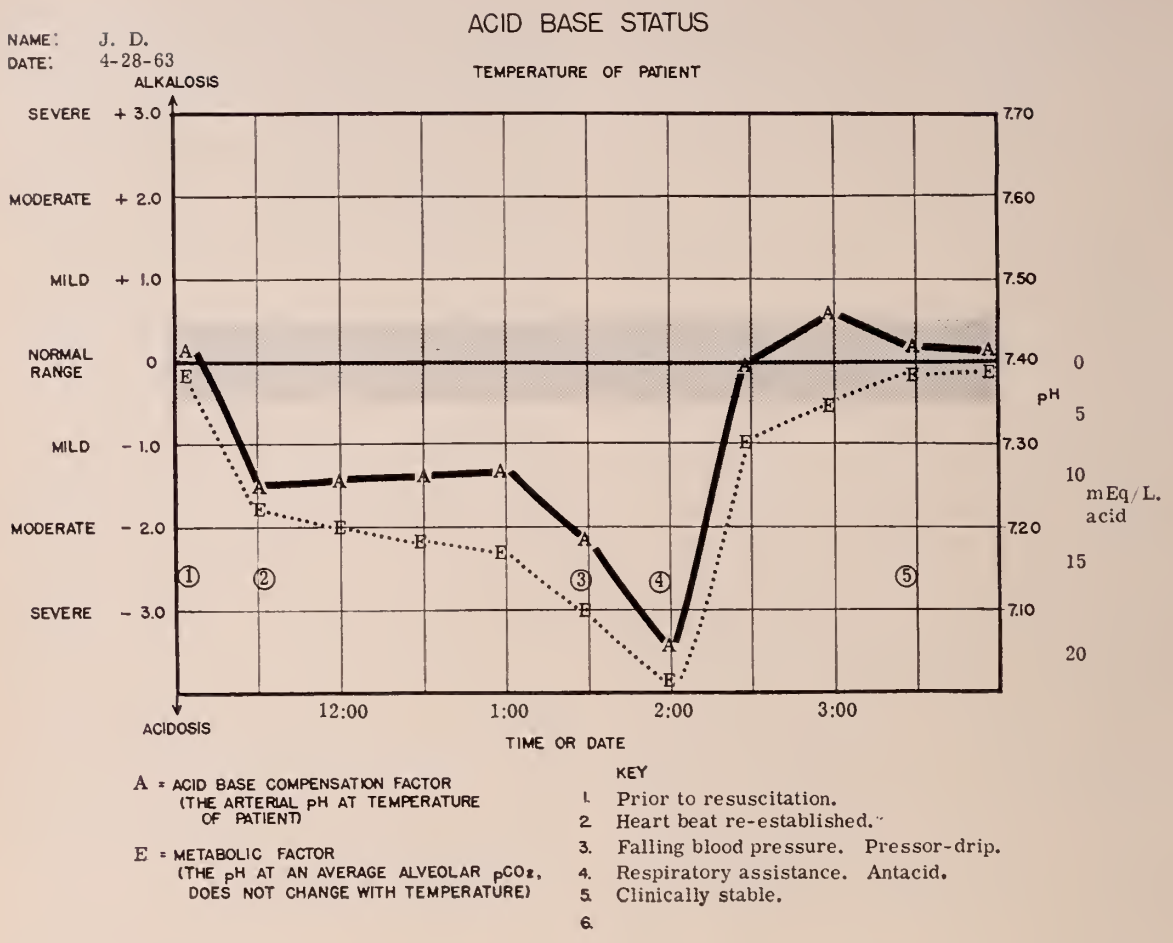


FIG. 2.

or no advantage in knowing the pCO_2 in mm. of Hg. The direction and general magnitude of the abnormality and its change with time are far more important.

Effects of Acidosis

The acidosis resulting from circulatory decompensation is of considerable importance. Initially, it provides a measure of the magnitude of hypoxia produced by the arrest or fibrillation. As time goes on it provides a measure of overall circulatory integrity. If there is a gradual decrease in acidosis, it can safely be assumed that the circulatory decompensation is increasing. The acidosis itself hinders restoration of normal circulation for the following reasons:

(1) Myocardial contractility and hence cardiac function are reduced.

(2) The effect of catechol amines, which the body elaborates to enhance the efficiency of existing circulation, is impaired.

(3) There is depression of the central nervous system inhibiting respiration.

(4) The same degree of respiratory effort produces less compensation in profound acidosis than it does when the metabolic state is more nearly normal.

(5) The affinity of hemoglobin for oxygen is less in acidosis and hence hypoxia is increased.

Efforts to decrease the metabolic abnormality with antacids lead to better myocardial function, improved peripheral vascular tone, enhanced and more efficient respiratory effort, and better oxygen transport.

Treatment

The abnormality in the eucapnic pH resulting from increase in acids may be used to estimate derangement of total acid base, but it is generally wise to attempt only correction of the abnormality in the circulating blood volume as obtained by the following formula:*

Increase in circulating acid = 0.1 x mEq/L. acid x weight in kg. It is recommended that correction with antacids be

reserved for situations where the eucapnic pH is below 7.25 and falling, indicating a decompensating metabolic acidosis of more than 10 mEq/L. An acidosis requiring treatment will nearly always be present after cardiac resuscitation.

In adults a "moderate" metabolic acidosis can be initially treated with a 13.75 Gm. (45 mEq) ampule of $NaHCO_3$ or one 9 Gm. (50 mEq) ampule of buffer amine.** For a "severe" metabolic acidosis, the dosage should be doubled. One ampule may be given safely before any pH determination. After administration, the pH values should be measured or checked.

Sodium bicarbonate is readily available in most hospitals and will usually prove to be a satisfactory antacid. Its use produces an excess of carbon dioxide which must be eliminated by the patient's lungs. The increase in sodium may aggravate cardiac decompensation in some patients. Buffer amine does not increase the CO_2 pressure since it will buffer carbon dioxide. It may be given without any additional electrolyte and consequently does not aggravate congestive failure. Buffer amine is more widely distributed than sodium bicarbonate and in its un-ionized form readily crosses the cell membrane so that acidosis is potentially treated at a more basic level. In addition, buffer amine is a potent osmotic diuretic and tends to prevent the renal complications of oliguria and anuria so frequently seen after cardiac resuscitation.

Figure 2 illustrates a hypothetical case of cardiac resuscitation. J. D., having had an acute coronary occlusion, experienced a sudden attack of ventricular fibrillation. He was immediately and vigorously treated with closed-chest massage, respiratory support, and electrical defibrillation. After resuscitation, which required about 30 minutes (11:30 A.M.), there was a moderate metabolic acidosis which was at first uncompensated. During the next hour and a half his respiration improved and there was better compensation so there was only a mild depression of the arterial pH. During this time, however, there was progressive accumulation of intermediary organic acids as a result of inadequate circulation and the patient suddenly became much worse (1:30 P.M.). Because of a failing blood pressure a norepinephrine drip was begun at about 1:00 P.M. but the progressive acidosis had impaired its effect. Respiration became progressively depressed as the acidosis increased. These factors led to acceleration of the circulatory decompensation which reached a critical point at 2:00 P.M. At this time vigorous antacid therapy consisting of 135 mEq of sodium bicarbonate was started. There was rapid return to a normal arterial pH as a result of partial metabolic correction and improved respiratory compensation, followed by gradual return to normal in the metabolic state.

Comment. Antacid should have been given after the initial successful resuscitation but the progressively decompensated circulatory status was not recognized until after the blood pressure had begun to fall despite noradrenaline and respiration had become seriously depressed. Although hypothetical, the degree of acidosis represented here is not unusual. I have seen the eucapnic pH depressed to 6.8 in a child with subacute bacterial endocarditis following cardiac arrest after administration of a large intravenous dose of potassium penicillin.

Summary

(1) Following resuscitation, severe metabolic acidosis is usually present. This generally interferes with the restoration of normal circulation and may promote a vicious cycle of myocardial failure, depressed peripheral vascular resistance, and depressed respiration, leading to failure of the resuscitative efforts.

(2) Measurement of the acidosis can easily be accomplished at the patient's bedside. It will facilitate estimation of the severity of the initial circulatory insult and the degree of continuing circulatory inadequacy, and it will provide a basis for practical antacid therapy.

(3) A method is presented for obtaining and recording acid base changes in a simple fashion. Antacid administration is briefly discussed and the use of sodium bicarbonate and the buffer amine, Tris (hydroxymethyl) aminomethane, are compared.

References

1. Peirce, E. C., II: A Simplified Approach to Obtaining and Recording Acid-Base Information in Surgical Patients. Ann. Surg. 156: 138, 1962.

2. Peirce, E. C., II: Effects of 2-amino-1-hydroxymethyl-1, 3-propanediol (Tris) During Cardiac Bypass Procedures, Ann. New York Acad. Sci. 92:765, 1961.

*Extracellular derangement about three times and total body abnormality about seven times this.

**Tris (hydroxymethyl) aminomethane, "Talatrol," Abbott.

The author points to the paucity of literature upon the use of enzyme in traumatic cataract. He describes its use in five cases.

The Use of Alpha-Chymotrypsin in Surgery of Traumatic Cataract*

J. ED CAMPBELL, JR., M.D., Knoxville, Tenn.

In 1957, Joanquin Barraquer[1] injected the solution of alpha-chymotrypsin into an eye that had been injured two years before with the hope that this enzyme would absorb the blood in the vitreous. Much to his surprise the lens became completely dislocated. This started him on the study of the use of this medicine for cataract surgery. He then reported, on April 8, 1958, before the Royal Academy of Medicine of Barcelona that he had performed many experiments, both on animals and humans, and concluded that the enzyme was safe and had used it on routine cases with excellent results. This represented the first record in literature on use of this substance to produce zonulolysis and to Barraquer has been given the credit for its discovery.

There have been many reports concerning the use of alpha-chymotrypsin in cataract surgery since that time, but very little in regard to its use in traumatic cataracts or in retained capsular membranes. In many large series of cases concerning the use of the enzyme in cataract surgery, there have oftentimes been one or two traumatic cataracts included in the reports, but no special reference has usually been made to its use in this type cataract.

Chymotrypsin is one of the proteolytic enzymes liberated by the pancreas and was first isolated in 1933 and named chymotrypsin to denote its clotting action on milk, thus distinguishing it from trypsin which does not clot milk but does clot blood. To understand the origin of the alpha qualification in alpha-chymotrypsin, it is necessary to note that chymotrypsin only exists in the pancreatic cells as an inactive precursor chymotrypsinogen and is converted into the form of chymotrypsin by the enzyme trypsin. A number of forms of chymotrypsin can be formed from the chymotrypsinogen. There are two groups of compounds which are considered to be inhibitors of alpha-chymotrypsin; the first group appear to react by combining directly with the enzyme at its active center, thus inactivating the enzyme. An example of this is DFP. The second group seems to compete with the substrate that normally is attacked by the enzyme. Chloramphenical is an example of this group.

During 1960, 1961, 1962 many excellent articles appeared by various authors on their experience with alpha-chymotrypsin in routine cataract surgery, especially in patients of the younger age group. Barraquer[1] himself reported on 750 intracapsular extractions with the aid of enzymatic zonulolysis. He did not differentiate between senile cataracts, either mature or immature, and traumatic cataracts. He concluded that the operation was made markedly easier with a much lower incidence of unplanned extracapsular extractions and that the only higher incidence of complications were those resulting from poor wound healing, such as delayed reformation of the anterior chamber, anterior synechiae, reopening of the corneal wound, prolapse of the iris, and late loss or flattening of the anterior chamber. To further minimize delayed wound healing, he pointed out that the incision, when using this enzyme, should be made approximately 1 mm. from the limbus in the scleral vascularized area with a conjunctival flap; that the suturing could be carefully done; the alpha-chymotrypsin should remain within the eye the shortest possible time; and it should be removed as quickly as possible from the incision area. In this vein he pulls the conjunctiva down

*Read at the meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 9, 1963, Knoxville, Tenn.

over the wound edges after injecting the alpha-chymotrypsin into the anterior chamber and then flushes the areas of the wound very thoroughly immediately after the injection is carried out. He then waits two to four minutes before irrigating the anterior chamber as most authors do.

Kennedy and associates[2] reported on 432 cases in which he used the enzyme but included only two traumatic cataracts. In 87 of these patients the cataract in one eye was removed before alpha-chymotrypsin, with 24 ruptured capsules for an intracapsular total of 72%; whereas, the second eye was operated upon with alpha-chymotrypsin with an incidence of 93% of intracapsular extraction. Contrary to some authors, they also noted that there was, if anything, less reaction of the corneal endothelium in the chymotrypsin eyes than in the eyes in which the cataract was extracted without chymotrypsin. They also noted that, because the anterior-posterior diameter of the lens increases after the zonules break and the lens assume a more relaxed shape, there is a decrease in the space of the anterior chamber making the endothelium of the cornea more liable to trauma by the extraction instrument. Therefore, to minimize this complication, they prefer to use a forcep and direct sliding technic rather than introduce an instrument further into the anterior chamber. Other authors, such as Murray and Dramps,[3] in 1960, and Townes,[4] in 1960 found a greater incidence of corneal changes, such as striate keratitis. One interesting notation the latter author made was the fact that ruptured capsules which did occur even when the enzyme was used could be removed more easily while the anterior chamber was open because there were no intact zonules to hold them. Other authors, such as Fernandez and Fernandez,[5] in reporting on 100 cataract extractions done without alpha-chymotrypsin as compared with an equal number done with the use of the enzyme, concluded there was no difference in regard to complications such as striate keratitis, and that this lesion was directly related to instrumentation done by either method and not in any way directly related to the enzyme. They also noted that the depth of the anterior chamber is diminished when the lens comes forward after the zonules have dissolved; therefore, much of the apparent increased striate keratitis may be because of the rubbing by an instrument introduced in this shallow chamber and that a sliding technic would be preferable. Again, none of these authors paid special attention to, or elaborated on traumatic cataracts.

A committee was set up by the American Academy of Ophthalmology and Otolaryngology, in 1959[6] which reported in 1960, after sending out questionnaires and receiving answers from 200 ophthalmologists concerning their experience with the enzyme. They found the percentage of extracapsular extractions when using the enzyme was only 7% compared to 19% found in a series of cataract extractions reported by Owens and Hughes, in which 2000 cases were analyzed in 1945. However, since it was thought that there was a difference of fifteen years, the technic may make part of the difference. It was noted that within this series reported by Troutman for the Academy, in patients in whom alpha-chymotrypsin was used in one eye and not in the second eye, there was an incidence of 6% of extracapsular extractions in the "enzyme" eyes against 17% in the "nonenzyme" eyes. They also concluded there was no appreciable difference between the effects of 1:5000 solutions as compared to 1:10,000 solutions. They further found that the complications occurring in the alpha-chymotrypsin series are those occurring with any type of cataract surgery, except that wound reopening did appear to occur in a high percentage in the reports used. They also reported, as stated in some of the aforementioned authors' articles, that the removal of the lens should be accomplished by a method which avoids contact with the endothelium by the extracting instrument. Also it was demonstrated that the use of less than three sutures for closure of the wound resulted in a higher incidence of wound reopening. They concluded their information that alpha-chymotrypsin should not be used in surgery of the lens in the following conditions: (1) cases in which the patient is under twenty years of age; (2) cases of endothelial dystrophy; (3) cases of subluxated lenses; and (4) cases of traumatic cataract, especially when vitreous is presented.

It is noted that in all of the preceding excellent articles, including many large series of cases, that there is either no or only casual reference to traumatic cataracts as an entity. Charmis and Topalis,[7] in reporting from the Eye Clinic of the University of Athens, did separate their cases and included 33 traumatic cataracts, which is the largest series I have found in the articles summarized. In their article they made the following notations with regard to traumatic cataracts: (1) that care should be taken to search for posterior adhesions of the iris and to break them with the help of an iris spatula before proceeding with the injection of the enzyme into the anterior chamber, because the enzyme had no effect on them; (2) it is understood that the total extraction is attempted only if the lens is absolutely intact or presents only a very small rupture, in which case the lens is grasped at the level of the rupture. They also noted that in cases in which the lens capsule was broken, use of the enzyme after the irrigation of the lens remnants facilitated the extraction of the capsules *in toto*. Tharp[8] in a very excellent article reporting on 71 operations did mention one case of an 18 year old boy who had suffered a traumatic cataract and that the zonules apparently did not break with the use of the enzyme, since he was unable to tear the capsule loose from the zonules. This was in spite of the enzyme remaining for three minutes within the anterior chamber before being washed away. He decided there was probably one of two reasons for this—either the enzyme had been allowed to remain for too short a time in the presence of a very tough zonule, or that the possible organization of a fine layer of exudate connecting the tissue on the zonular surface may have prevented zonulolysis. He also noted, as in the article by Charmis, that the posterior synechiae had to be separated before the cataract extraction since the enzyme completely failed to lyse any posterior iris synechiae. Another interesting fact he reported was, by performing postoperative gonioscopy, there was an irregularity of the zonular foramen which led to the conclusion that the effect of the alpha-chymotrypsin action in cataract surgery was upon the zonular attachment to the lens. He also did biomicroscopic examination of 42 lenses extracted in capsule shortly after their removal and revealed them to be almost entirely devoid of zonular fibers, again arriving at the same conclusion just stated. In 1961, Hilgartner and Thompson,[9] reported a very interesting case of a 47 year old man who was struck in the left eye by a piece of metal which penetrated through the lens and located 15 mm. behind the center of the cornea in the vitreous. The lens had become quite cloudy due to the penetration of the metal particle through the anterior and posterior capsules and substance of the lens, but by means of alpha-chymotrypsin the lens was removed intracapsularly with an erisophake without any loss of vitreous. The magnet was then introduced into the anterior chamber and the current turned on, and the foreign body was extracted through the pupil. The extraction of the traumatic cataract was considered intracapsular; although, there was a small tear in the lens capsule, both anterior and posterior, where the foreign body had penetrated. The fact that the tear did not enlarge or break with the loss of lens cortex can be accounted for only by the zonulolysis of the alpha-chymotrypsin and that the lens was completely free and no traction had to be applied to the zonule.

This report concerns the use of alpha-chymotrypsin in the field of traumatic cataract surgery where many of the persons injured are in the younger age group with attendant tough zonules. We are reporting 5 cases whereby the ease of operation, the clear pupillary area, the final visual results, and the lack of necessity of a second operation were all beneficial, both to the patient and the surgeon. Byron,[10] in 1961, reported 4 cases of retained lenticular material among which were 2 traumatic cataracts in which he used a similar technic, using alpha-chymotrypsin in the way we are reporting.

Case Histories

Case 1. A 28 year old white mechanic was seen on May 10, 1962 with a history of having been struck in the right eye with a piece of steel and had a severe penetrating injury to the cornea and lens and passing through the posterior segment of the eye, with the foreign body being localized outside the eyeball in the orbit. The corneal wound was small and was treated con-

servatively with hospitalization, an eye patch and with local and systemic antibiotics and steroids. No suturing was necessary. He subsequently developed a traumatic cataract which went through the intumescent stage, later maturing, and disintegration of the lens with extrusion of the lenticular material into the anterior chamber. On Oct. 3, a cataract extraction was done, using the following technic: routine akinesia was carried out by means of the O'Brien technic, and retrobulbar injection of 1% lidocaine with epinephrine and hyaluronidase for anesthesia.

A limbus based conjunctival flap was turned and three preplaced McClain sutures were placed at the 10, 2, and 12 o'clock positions on the eye; the anterior chamber was entered by a keratome; the incision was then enlarged to the 3 and 9 o'clock positions by a corneoscleral scissors. A total iridectomy was done at the 12 o'clock position, and as much of the lenticular material as possible irrigated out of the anterior chamber, leaving a large amount of capsule retained which could not be removed by capsule forceps. Approximately 1 cc. of alpha-chymotrypsin solution (1:5000 dilution) was injected into the posterior chamber around the equator of the lens at approximately four positions; after approximately 3 minutes, this was thoroughly irrigated out with balanced-salt solution. The capsule forceps was then used to grab a large portion of the capsule, and the remaining capsule was removed *in toto* with no fragments being left in the eye. There was no loss of vitreous during this procedure; the iris was reposited, and the McClain sutures tightened and tied; two additional post-placed sutures were taken at the 1 and 11 o'clock positions. The conjunctiva was sutured with a running suture. The postoperative recovery was uneventful with a clear pupil. He was later fitted with contact lens in this monocular aphakic eye with resulting 20/20-2 vision.

Comment. This case demonstrates that when an extracapsular extraction is necessary because of tearing of the capsule from the trauma and when there is retained capsule, one careful injection of the alpha-chymotrypsin around the equator of the lens will often free the capsule so it can be carefully removed *in toto* without having to be left in the eye. This alleviates the fear of the strong pull on the capsule necessary at this stage, and avoids the necessity of a later capsulotomy to get an adequate pupillary opening and the frequent complication of retained capsule.

Case 2. A 33 year old white construction worker was first seen on May 30, 1960 because of a severe penetrating injury of the right eye with a nail. He had a severe corneal laceration, prolapse of the iris, hyphemia of the anterior chamber and traumatic cataract.

Immediately an excision of the prolapsed iris was done, the anterior chamber irrigated and repair of the corneal laceration done. He subsequently developed a mature traumatic cataract with posterior synechiae and a dense inferior corneal leukoma from the penetration; there was adherence of the anterior lens capsule to the wound inferiorly. Because of the large rent in the capsule and adhesions of the anterior capsule to the corneal endothelium and scar, an extracapsular extraction was necessary. But again, after breaking the posterior synechiae with an iris spatula and freeing the adhesion to the corneal leukoma with the Vannas scissors, and using a 1:5000 solution of alpha-chymotrypsin around the zonules for four minutes, with subsequent irrigation with normal saline, the entire capsule was removed, leaving a clear pupillary area superior to the corneal leukoma. There was no loss of vitreous and the patient now has a clear pupillary opening superior to the leukoma.

Case 3. This 29 year old truck mechanic was first seen on Oct. 25, 1962 when he was struck in the left eye by a piece of metal and had a corneal puncture wound with evidence of complete penetration through the lens. Localization by x-ray of the foreign body revealed it to be within the vitreous cavity. He was taken to surgery where the foreign body was removed through the posterior route, using a magnet. Because of the small entrance wound, no suturing of the cornea was necessary. He had an uneventful postoperative recovery from the extraction of the foreign body, but the traumatic cataract gradually matured.

On Jan. 22, 1963, because the lens was markedly swollen and opacified within its intact capsule, operation was done. When the anterior chamber was entered, the lens ruptured, cortical material filling the anterior chamber. As much of the lens material as possible was irrigated out, leaving almost the entire capsule with some of the retained cortical material. Approximately 2 cc. of alpha-chymotrypsin solution was injected into the posterior chamber around the equator of the lens at four positions, and after 3 minutes this was irrigated out with 0.5 normal saline. The entire lens capsule was then easily extracted *in toto*, leaving an intact hyaloid face and clean anterior chamber. He had no vitreous loss and an uneventful postoperative recovery. Unfortunately, due to the damage of the posterior segment by the foreign body, his vision is limited to hand movements.

Case 4. A 34 year old white employe of a power equipment company was seen on Sept. 13, 1962 with a small through-and-through corneal laceration and penetration of the lens by a sharp instrument. This man was treated conservatively, no sutures being necessary to repair the corneal laceration. A cataract gradually became intumescent with the development of secondary glaucoma which had to be controlled by carbonic anhydrase inhibitors and miotics. At operation, after entering the anterior chamber and performing a basal

iridectomy, approximately 2 cc. of alpha-chymotrypsin solution were injected around the equator of the lens into the posterior chamber; this was subsequently irrigated out after remaining within the chamber 3 minutes. Because of the capsular rupture from trauma, an extracapsular extraction was necessary, but because of the effect of the chymotrypsin, the lens capsule was easily removed by means of capsule forceps without undue pulling on the ciliary body. He has had an uneventful postoperative recovery, and because the corneal wound was inferior to the central pupillary axis he has subsequent vision of 20/25 in this eye.

Comment. This case demonstrates that when an unplanned extracapsular extraction is necessary, or when it is thought a good probability that an extracapsular extraction will need to be done, the preliminary injection of alpha-chymotrypsin solution around the zonules will make the capsule easily removed even though the lens cannot be extracted in an intracapsular fashion.

Case 5. This was a mechanic in whom a very small foreign body penetrated the cornea and lens and apparently went through the posterior segment, since it was located outside of the eyeball within the orbit. It was a very minute particle and suturing of the cornea was not necessary, but the cataract gradually matured and 3 months later he was operated upon. Because of the very small opening in the anterior and posterior capsule, and because an injection of a 1:5000 dilutions of alpha-chymotrypsin around the lenticular zonule with the subsequent anterior dislocation of the lens, it was easily removed in an intracapsular manner using an erisophake over the small anterior capsular hole.

Comment. This case demonstrates well that the lens, having become completely dislocated after using the alpha-chymotrypsin solution and coming forward into the anterior chamber, could be removed intracapsularly, whereas, had the alpha-chymotrypsin not been used, I am sure that any pulling or undue probing on the capsule would have probably caused further rupture of the capsule with a subsequent extracapsular extraction. This man eventually developed 20/40 vision after an uneventful postoperative recovery.

Summary

I have presented 5 cases of traumatic cataract in which by the use of alpha-chymotrypsin, a clear pupillary opening was obtained in all cases. In some, after irrigation of flocculent cortical material from the anterior chamber, alpha-chymotrypsin helped remove the remaining capsule leaving an intact hyaloid and no apparent damage to the eye. In another case, even though an extracapsular extraction was required by the large tear in the capsule from the trauma, the preliminary injection of alpha-chymotrypsin around the posterior chamber allowed the capsule to be removed quite easily even though an extracapsular extraction was necessary. In still another case, where there was a very small hole in the anterior capsule, by the use of alpha-chymotrypsin preliminary to the attempted extraction, after the anterior displacement of the lens and using an erisophake over the capsular rupture, the lens was very easily removed in an intracapsular fashion. In a patient of this age I am sure this would have been impossible without the use of the enzyme. Most of the injuries of this type occur in younger persons with their tough lenticular-zonular attachments; any method whereby the lens can be extracted more easily and, preferably, completely is of tremendous value. This has the advantage of not leaving capsular remains within the eye and the frequent complications attendant. Also a better visual result is obtained, especially with the use of contact lenses in a monocular aphakic eye. Finally, it avoids a second operation such as a capsulotomy. Furthermore, these same technics can be carried over to any unplanned extracapsular extractions in routine senile cataract surgery whereby, when lens remnants are left in the eye, alpha-chymotrypsin may be used to facilitate their removal. This has been well presented by Byron.[10]

In this particular paper I have not presented a case in which there was dissolution of the lens material with a dense secondary membrane remaining as is often seen after injuries. I plan in the future to use alpha-chymotrypsin around the zonules of such a membrane to see if this tough membrane can also be removed *in toto*. In no case did I have any undue corneal reaction, such as excessive striate keratitis, and in no case did I have any difficulty with wound healing, although, I might add that five sutures were used in all cases. Further, it is quite important to examine the patient with the slit-lamp to note any prolapse of vitreous

through a ruptured hyaloid into the anterior chamber preoperatively, since this would be a contraindication to this method of enzyme injection.

References

1. Barraquer, J.: Enzymatic Zonulolysis in Lens Extraction, Arch. Ophth. 66:32, 1961.

2. Kennedy, et al.: Enzymatic Zonulolysis in Aid to Cataract Surgery, Arch. Ophth. 64:342, 1960.

3. Murray, R. G. and Dramps, S. M.: Use of Alpha-Chymotrypsin in Cataract Surgery, Arch. Ophth. 63:910, 1960.

4. Townes, C. D.: Unfavorable Effects of Alpha-Chymotrypsin in Cataract Surgery, Arch. Ophth. 64:108, 1960.

5. Fernandez, R. F. and Fernandez, R. D.: Cataract Extraction with Enzymatic Zonulolysis, Am. Acad. Ophth. 66:488, 1962.

6. Report on the Committee on Alpha-Chymotrypsin in Opthalmology, Am. Acad. Ophth. 1960.

7. Charmis, John and Topalis, C.: Experience in 812 Cataract Operations with Enzymatic Zonulolysis, Am. J. Ophth. 52:195, 1961.

8. Tharp, Harvey E.: Enzymatic Zonulolysis, Am. J. Ophth. 49:531, 1960.

9. Hilgartner, H. L. and Thompson, H. E., Jr.: Alpha-Chymotrypsin in Intra-Ocular Foreign Body Extractions, Am. J. Ophth. 51:147, 1961.

10. Byron, H. M.: Management of the Retained Lenticular Material by Enzymatic Zonulolysis, Arch. Ophth. 66:87, 1961.

RESULTS OF SURGICAL TREATMENT OF INCIPIENT STROKE. Whisnant, Jack P., Siebert, Robert G., Bernatz, Phillip E., and Ellis, F. Henry: Circulation 27:1028, 1963.

Thirty-five patients with focal intermittent cerebrovascular insufficiency were operated upon to restore circulatory integrity in the extracranial cerebral circulation. Sixty-six percent were normal and 17% had cerebral infarcts in the follow-up period of 6 to 42 months. These results were compared to a group of 40 with similar symptoms who received no treatment. Twenty-five percent of this "contrast" group recovered spontaneously, i.e., had no further episodes or infarction, and forty percent had cerebral infarction. This latter group cannot be considered in ideal control group as a large proportion did not have angiography and the follow-up period of 12 to 60 months is longer than that of the group operated upon. Overall mortality was approximately the same for both groups.

One-half of the untreated group did not have permanent neurologic impairment during the period of observation; thus the term "incipient stroke" connotes an overly pessimistic outlook for patients with this symptomatology.

The exact role of surgery in the treatment of this disorder awaits the results of adequately controlled studies. Indicative of this is the statement of the authors that patients who have other conditions that indicate a need for long-term anticoagulant therapy are not considered primarily as potential candidates for surgical treatment. (Abstracted for the Middle Tennessee Heart Association, by E. J. Battersby, M.D., Nashville.)

Cystic Disease Of The Renal Medulla

MARTIN KERLAN, M.D., and MRS. OLIVE Q. RUSSELL HT, (ASCP)
Mountain Home, Tenn.

Cystic disease of the renal medulla is one form of atypical kindey disease which can be a difficult diagnostic problem if not included in the differential list of renal diseases.

To date only 25 cases have been reported in the medical literature since 1951. This entity is rarely reported even though a definite pattern develops and may be recognized clinically if all facets of this disease are present.

This form of kidney disease, when it is symptomatic, may be described as anephritic-nephritis. The illness has an insidious onset with polyuria, polydypsia, severe anema, azotemai, salt-wasting, absence of hypertension and normal urinary findings, except for hyposthenuria. Occasional cases in the young individual may show cystic disease of the bone. When these findings are noted one may initially consider diabetes mellitus, diabetes insipidus, Addison's disease and hyperparathyroidism, which are soon discarded in the differential study. The anemia is of obscure etiology which may be the presenting symptom.

Renal failure associated with glomerulonephritis, arteriolar nephrosclerosis, hydronephrosis usually have the manifestations of typertension, retinopathy edema, anemia, azotemic albuminuria, cylindruria and cells and so differs from medullary cystic renal disease.

In 1944, Thorn, Koeph and Clinton (1) described 2 cases of renal medullary cysts. The patients had renal failure simulating adrenocortical insufficiency. In 1952, Murphy, Coffman, Pringle and Iseri (2) studied a case of sodium and potassium metabolism in salt losing nephritis with medullary cysts. This patient also had the above mentioned findings of renal medullary cysts. In 1954, Hogness and Burnell (3) reported 3 cases of medullary cysts of the kidneys with clinical evidence of this disorder. Knowles, Levitin and Bridges (4) in 1957 described a case of salt-losing nephritis with fixed urinary composition. The autopsy findings showed multiple cysts in the cortices and medullary portions of the kidneys. In 1960, Thorn and associates (5) reported a case of hormonal studies in salt losing nephritis with medullary renal cysts. Renal tubular ectasis in cystic disease of the kidneys was reported in 1960 by Reilly and Neuhauser (6). This disease is a hereditary familial disorder associated with cystim degeneration of the liver and differs from medullary cystic disease of the kidney. In 1962, Strauss reported 18 cases of cystic medullary renal disease.

Sponge kidney is another entity of renal disease with multiple cysts located in the renal pyramids and is different histologically and clinically.

Review of Case

This 41 year old white male was first admitted on Aug. 16, 1961, with symptoms of 6 months duration of polydypsia, polyuria, weight loss, weakness and an anemia of unexplained etiology. Two weeks prior to admission he developed anorexia, projectile vomiting, tinnitus in both ears, objective vertigo, myalgias of the calf muscles and back with epistaxis. The patient drank about one gallon of water daily and voided approximately equivalent amounts.

Physical Examination. The patient was a tanned, acutely ill man of stated age. He was listless, apathetic and dull as he was wheeled into the examining office. He was 71½ inches tall and weighed 132 pounds; T. was 98.6°, P. 110, B.P. 120/80. His face was tanned. The thyroid gland was palpable, but there was no cervical nor general adenopathy. The mucous membranes of the nose, mouth and throat were pale; no ulceration was noted in the nares. The eyes were not jaundiced, and the eye grounds, including the discs, were normal. The lungs were not remarkable. The heart was not enlarged, there were no murmurs and sinus tachycardia was present. The liver and spleen were not palpable. There was no renal tenderness.

Laboratory Studies. Hemogram revealed a Hgb. of 7.75 Gm./100 ml., PCV. of 24%, RBC. count of 3,500,000, WBC. count 6,000, with 67% neutrophiles, 18% lymphocytes, 7% eosinophiles, 8% monocytes and 75,000 platelets. The red cells showed anisocytosis, a few microcytes, basophilic stippling and polychromatophilia. Bone marrow studies were essentially normal. Blood urea nitrogen was 155 mg., fasting blood sugar, 109 mg.,

and creatinine 11.6 mg. per 100 ml. Cardiolipin microflocculation studies were non-reactive. Urinalyses showed negative to traces of albuminuria and occasional RBC. A Mosenthal urine test revealed a maximum specific gravity of 1.010 and the lowest value was 1,006. Protein bound iodine studies were elevated at 17 micrograms per 100 ml. Twenty-four hour urine studies revealed 2.5 Gm. of albumin. Retrograde examination showed the kidneys, ureter and bladder to be well filled with no demonstrable abnormality. Radioactive iodine uptake studies showed an uptake of 10% ingested in 24 hours. 17 hydroxy-keto steroids and 17 keto steroids were normal on 24 hour urine studies. BMR. studies varied from 11% plus to 20%. Gastric analysis showed no free HCL. Spinal fluid studies and cultures were normal. Total blood protein was 7.7 Gm., albumin 4.3 Gm. and globulin 3.4 Gm. per 100 ml. Blood CO_2 was 28 meq/L, and potassium was 6.6 meq/L. Adrenal function studies were normal. Antistreptolysin titre was 50 Todd units. Bilirubin total and direct were normal. Blood Cholesterols were 200 mg. per 100 ml. Stool studies were negative for occult blood, ova and parasites. Blood calcium was 9.8 mg. and phosphorus 8.4 mg. per 100 ml. Hemoglobin electrophoresis was normal for an adult. Serum electrophoresis revealed an increase in gamma globulins.

Course in Hospital. This patient was acutely ill on admission with severe anemia, azotemia, absence of hypertension and few urinary findings. The anemia could not be corrected by iron orally and required 17 transfusions on his first admission. The azotemia was partly corrected with a protein intake of less than 20 Gm. daily. The nausea, vomiting and vertigo also improved with diet. The final blood value was 5 million red cells and 14.75 Gm. of Hgb., at the time of discharge. Patient continued with leg pains and cephalalgia. Throughout hospitalization skeletal x-rays were essentially normal. The electrocardiogram showed sinus tachycardia.

The patient's condition would wax and wane with little improvement in subjective symptoms.

Patient was discharged on Feb. 17, 1962 and was followed on an out-patient basis. His second admission was on March 22, 1962, when he expired on March 27, 1962. During this period patient was in severe azotemia and uremia. The uremic phase became progressively worse and patient expired 5 days following admission with terminal pneumonia.

An autopsy was performed and the pertinent features are listed below:

Autopsy Findings. Essential basic autopsy findings showed the heart to weigh 330 Gm., with normal musculature of the ventricles. The heart valves were negative. Lungs revealed the right lung to weigh 840 Gm. with congestion, right base with terminal pneumonia. The left lung was grossly negative.

The kidneys were covered with a thick fat pad. The capsules stripped easily with some roughening. On longitudinal sectioning there was marked destructive processes involving the kidney parenchyma. There were multiple cysts throughout the cortex and medulla with destruction of tissue between the cysts. The pelves were not dilated. (See Figs. 1, 2 and 3 for microphotographs.

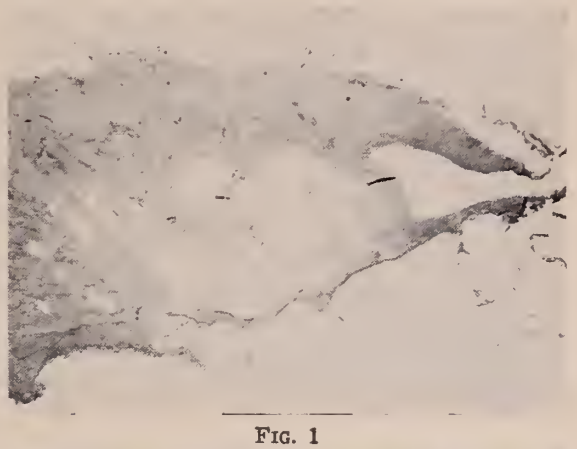


FIG. 1

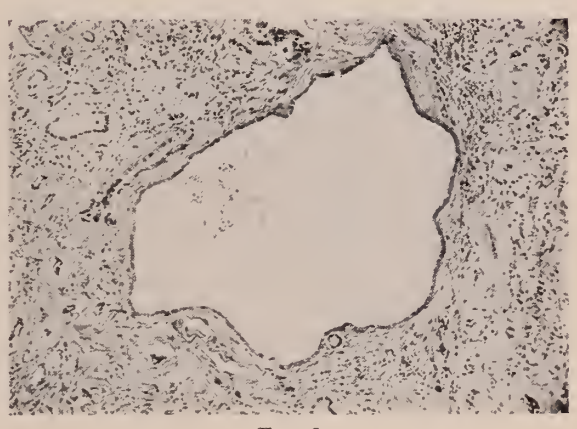


FIG. 2

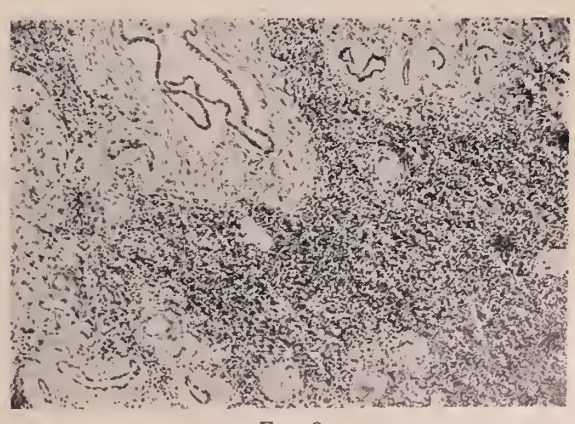


FIG. 3

Microscopically. The kidney tubules were dilated and filled with amorphous eosinophilic material. There was marked fibrosis of the interstitial tissues with lymphocytes. Some of the glomeruli were hyalinized. The cysts of both kidneys within the cortex and medulla were partly

lined by flattened cuboidal epithelium. Periglomerulofibrosis was present. (See figures.)

Pathogenesis

The pathogenesis of this disease is not known. Hereditary does not play a part. Pyelonephritis in infancy may be a cause, but in the adult form no bacterial agent has been isolated from the urine. The kidneys are usually of equal size, which is not usually found with pyelonephritis in the adult.

Summary

One case of cystic disease of the renal medulla is presented with autopsy findings. This disease may be considered in any case of azotemia of slow onset with anemia, salt wasting in a normotensive person. The urinary findings are usually free of albumin, casts and cells, and of low specific gravity.

References

1. Thorn, G. W., Koepf, G. F. and Clinton, M., Jr.: Renal Failure Simulating Adrenocortical Insufficiency, New England J. Med. 231:76, 1944.

2. Murphy, R. B., Coffman, E. W., Pringle, B. H. and Iseri, L. T.: Studies of Sodium and Potassium Metabolism in Salt-losing Nephritis, Arch. Int. Med. 90:750, 1952.

3. Hogness, J. R. and Burnell, J. M.: Medullary Cysts of Kidneys, Arch. Int. Med. 93:355, 1954.

4. Knowles, H. C., Jr., Levitin, H. and Bridges, A.: Salt-losing Nephritis with Fixed Urinary Composition, Amer. J. Med. 22:158, 1957.

5. Thorn, G. W., Goldfien, A., Suiter, T. B., Jr., Dammin, G.: Hormonal Studies in Salt-losing Nephritis. Clin. North America 44:1139, 1960.

6. Reilly, B. J. and Neuhauser, E. B. D.: Renal Tubular Ectasis in Cystic Disease of the Kidneys and Liver, Am. J. Roentgenol. 84:546, 1960.

7. Strauss, M. B.: Clinical and Pathological Aspects of Cystic Disease of the Renal Medulla, Ann. Int. Med. 57:373, 1962.

STAFF CONFERENCE

Vanderbilt University Hospital*

Weber-Christian Disease

DR. DAVID H. LAW: The patient to be presented today had a recurrent illness of long duration which never threatened her life but caused great discomfort and considerable disability. Diagnosis proved most difficult. Her story will be presented by Dr. Dobbs.

DR. CHARLES DOBBS: A.H., a 60 year old married negro woman, was first seen in 1937 complaining of "sores" on the lower legs and obesity (244 lbs.). Erythema nodosum was suspected but it was noted that the distribution of lesions was posterior as well as anterior with some predisposition to the anterior thighs.

On physical examination the lesions were 1-4 cm. in diameter, raised, tender and nonfluctuant. They appeared to be movable, subcutaneous and cutaneous without evidence of suppuration but some local warmth. Successive crops appeared on both extremities and as the lesions regressed over a one-month period there remained pitted, darkened areas. (Fig. 1.)



FIG. 1. Note darkened, pitted areas representing residual of panniculitis lesions.

*From the Department of Medicine, Vanderbilt University School of Medicine, Nashville, Tenn.

Over the next 25 years this patient suffered recurrent bouts of nodules on the legs, trunk and upper extremities. Systematic symptoms of fever, malaise and myalgia frequently would accompany the appearance of these nodules.

Erythema nodosum, erytheme multiforme and connective tissue diseases were suggested on several occasions but most often superficial thrombophlebitis was diagnosed and treatments included rest, local heat, elastic stockings, periodic attempts at weight loss and antibiotics.

Family history revealed no similar illness in her relatives.

Review of systems disclosed a long-standing history of asymptomatic hypertension (150/100-220/120 mm. Hg.) and a complaint of recurrent corneal ulcerations resulting in partial blindness. Ophthalmologic consultants failed to discover the cause of these ulcerations but she undertook an extensive trial of old tuberculin desensitizations over a 4 year period with onset of treatment after onset of leg nodules.

Laboratory data was unrevealing with a normal complete blood count, urinalysis, protein electrophoresis, lupus erythematous preparations and x-ray examination of the chest, legs and abdomen.

In 1960, a phlebogram showed well functioning deep veins. However, the patient noticed increased distress with pain and new nodules formation in the 2 week period following the procedure.

In 1961, when the patient was seen in the Vascular Clinic a biopsy was obtained and the report described a nonsuppurative panniculitis characteristic of Weber-Christian disease.

She was transferred to the Medical Clinic for further evaluation and treatment. Dr. Law will discuss this case.

DR. LAW: The disease represented by this patient has been described since 1892 but still has to be explained in terms of etiology and pathogenesis[1]. Our attention recently was redrawn to this entity when we realized we were following 4 patients with biopsy proven disease in the Out-Patient Department.

The clinical course has been aptly summarized in the name used alternately with the eponym Weber-Christian disease—i.e., relapsing, febrile, nodular, nonsuppurative panniculitis.

As epitomized by our patient, this disorder appears to affect women more frequently than men and, although it may first appear in infancy or beyond age 60, it most frequently affects obese women 20 to 40 years old. There has been no particular seasonal or geographic distribution as yet described although the disorder appears to be relatively rare in Negroes. Laboratory

studies have been noncontributory with normal serum lipids, lipase activity and proteins. Several patients have had diabetes mellitus.

Since this disease may take a benign form with little if any fever, it may be misdiagnosed in many instances. It would seem to be more common than usually recognized and may be masquerading under the clinical diagnoses of superficial thrombophlebitis, erytheme nodosum, induratum or multiform, nodular vasculitis, insulin lipodystrophy, traumatic subcutaneous fat atrophy and a host of other entities which may produce subcutaneous nodules or areas of pitting and fat loss.

Although the diagnosis may be suspected clinically, biopsy of one or more lesions is necessary for verification. The pathologic changes vary some with the stage of the lesion and although they may not be pathognomonic, they are characterized by edema and necrosis of fat, some lipophagocytosis with round cell infiltrate and occasional giant cells. There may be perivascular infiltration in the fat lobules[2].

Specific treatment has yet to be found and any therapy is difficult to evaluate because of the remitting nature of the illness, though beneficial results have been reported with sulfonamides. Adrenocorticosteroid therapy has not seemed to ameliorate the condition nor has penicillin therapy.

Local treatment with rest, moist heat, gentle support as with elastic stockings, and avoidance of trauma give considerable relief in milder cases.

It has been noted that exposure to iodides may exacerbate the illness and in the case presented by Dr. Dobbs, a phlebogram was followed by increased symptoms and fever.

The disease rarely appears to be fatal, although at autopsy several cases have had involvement of fat in pancreatic, renal, adrenal and cardiac areas as well as evidence of fatty liver and fat embolism.

One wonders about the relationship of this disorder to mesenteric panniculitis which usually is recorded without reference to skin lesions[3].

Our patient, one of the few Negroes reported with this disease, is currently in a spontaneous remission. Her associated problems of corneal ulceration and hypertension are not thought to be related to her panniculitis. She once again demonstrates the necessity for tissue study in all instances of questionable diagnoses. We feel certain that this disorder is not nearly so unusual as reported but instead is hidden in a maze of variable diagnoses. Since looking for this disorder we have discovered there have been only 20 cases diagnosed at Vanderbilt University Hospital in the last 30 years but we are currently following four at Vanderbilt Hospital and Nashville General Hospital.

References

1. Beerman, H.: Weber-Christian Syndrome, Am. J. Med. Sci. 225:446, 1953.

2. Hallahan, J. D. and Klein, T.: Relapsing Febrile Nodular Nonsuppurative Panniculitis (Weber-Christian Disease); Review of Literature and Report of Case, Ann. Int. Med. 34:1179, 1951.

3. Herrington, J. L., Jr., Edwards, L. H. and Grossman, L. A.: Mesenteric Manifestations of Weber-Christian Disease, Ann. Surg. 154:949, 1961.

CLINICOPATHOLOGIC CONFERENCE

Cirrhosis and Carcinoma of the Liver*

This 18 year old white man had several respiratory infections during the first 3 months of 1962. The latter part of March 1962 he began to feel tired and was noted to be jaundiced. He was first seen by a local physician on April 9, at which time he gave a history of 8-10 lbs. weight loss in spite of a good appetite and eating between meals. Cigarettes had lost their taste. There had been some substernal discomfort that was worse on deep breathing and on coughing. He had had no itching of the skin. He had noted dark urine and the whites of eyes were turning yellow. His bowel movements were said to be of normal color.

On the first examination, his physician found the liver edge 2 fingers-breadth below the right costal margin, but the edge was not sharp and definite. He was placed on vitamins and bed rest with clearing of the jaundice and some decrease in the size of the liver. When told that he was improving and to continue the treatment, the patient and his family considered this to mean that he could return to his normal activities. This included driving the family car, drinking alcoholic beverages and keeping late hours at night.

On May 8, he returned to his family physician more jaundiced and feeling worse. At this time the serum transaminase was 136 units, the total bilirubin was 5.2 with the direct reacting bilirubin being 4.3 mg.%. A cephalin flocculation test was negative. Again, the patient was placed on bed rest and on vitamins, but he failed to improve. Because of economic conditions, the family decided to leave him at home for another period of rest. On May 23, because of failure to improve, he was admitted to a local hospital for further observation and treatment. The total bilirubin was 6.7 mg., alkaline phosphatase 18.9, and the cephalin flocculation test was negative at the end of 48 hours.

The past history was not remarkable except for bronchitis for each of the past three winters. A brother had had vague abdominal cramping and constipation for one year. Liver function tests on the brother had been normal. The father had recently had an attack of orchitis and prostatitis.

At the time of the first admission, the B.P. was 110/80, T. 98.6°, R. 20 and P. 80. The patient appeared to be wasted and quite thin. The abdomen was protuberant. His skin was markedly icteric; there were no spider angiomas. Lymph nodes were not enlarged; thyroid was normal; the neck had normal motility. Examination of the head was normal except for icteric sclerae. The heart tones were of good quality; the rate and rhythm were normal. The aortic second sound was louder than the pulmonic second sound and there were no murmurs. The lungs were clear. The abdomen showed some fullness in the upper region with flatness to percussion 4 fingers breadth below the right costal margin. The edge of the liver could not be definitely felt. The spleen was not palpable. There were no other palpable organs or masses. There was percussion tenderness over the liver.

Admission laboratory work showed the Hgb. to be 13.9 Gm., WBC. count 8,150 with 47% segmented neutrophils, 52% lymphocytes and 1% eosinophils. Three stools for ova and parasites revealed only *Endamoeba coli* cysts and trophozoites. Stool culture was negative. Urine was positive for bile and urobilinogen. VDRL test was negative. Serum transaminase was 380, icteric index was 90.5; N.P.N. was 22 and cholesterol 252 mg. per 100 ml. Chest x-ray film was negative, as were x-rays of the abdomen.

The patient was placed at bed rest and in addition to the diet he was given 10% dextrose in water and vitamins intravenously. A sigmoidoscopic examination was negative. He was referred to this hospital on July 25 with the request that a liver biopsy be done.

Laboratory studies done at Baptist Memorial Hospital included the following additional findings: prothrombin time 18 seconds, control 13.5 seconds; blood ammonia 339 mcg.%; cephalin flocculation 1+ at end of 48 hours; serum bilirubin 2.9 mg.%, direct 1.3, indirect 1.6; alkaline phosphatase 56 K-A units. Stools were negative for ova, cysts and parasites. Plasma urea nitrogen was 8 mg., serum creatinine 0.9 mg. and serum iron 68 mcg. per 100 ml. Blood protein bound iodine 5.3 mcg.%. Urine urobilinogen 1.7 Ehrlich units in 24 hours. Total protein 6.6 Gm., albumin 3.22 Gm., alpha, beta and gamma fractions were found to be normal. Serum cholesterol was 385 mg. per 100 ml.

X-ray film of the chest was negative. KUB. film showed a mottled calcification in the RUQ. overlying the 10th rib which appeared to be in the liver. Cholecystogram was normal. I. V. pyelogram was normal. Upper G.I. series with special study of the small bowel showed an extrinsic deformity along the lesser curvature of the stomach in the second portion of the duodenum. The duodenal loop was not widened. The deformity was thought to be due to an enlarged liver. A barium enema was negative. EKG. was normal. Hematology consultation and bone marrow studies showed a mild anemia compatible with chronic illness and normal bone marrow except for slight eosinophilia.

On Aug. 15, 1962, the liver was examined and biopsy done through a 6 cm. right rectus incision and under local anesthesia. On opening the peritoneal cavity, approximately 2,000 cc. of yellowish, serous fluid was obtained along with a small amount of gelatinous white-appearing material. The liver was approximately three times

*From the Baptist Memorial Hospital, Memphis, Tenn.

normal size and had a greenish tint. The gallbladder was markedly contracted. On the right lobe of the liver there were numerous nodules, the largest measuring 4 cm. in diameter. A biopsy was obtained from one of these areas. It was reported as showing areas of scarring and suggestive areas of regenerative hyperplasia. The process was considered consistent with a diagnosis of postnecrotic cirrhosis. The patient was sent home on Aug. 22.

He returned on Jan. 8, 1963 because he had developed a cough, weakness, and shortness of breath. He was said to have had some fever prior to admission but was afebrile on admission. Laboratory findings added no additional information, but physical examination and x-ray revealed a marked pleural effusion on the right. On Jan. 9 a thoracentesis was done with removal of 720 cc. of serosanguinous fluid. Laboratory examination revealed 320 WBC. per cu. mm. and 5,230 RBC. Cytologic examination of pleural fluid showed atypical cells. Culture of the fluid revealed hemolytic Staphylococcus, coagulase negative. Another thoracentesis was done on Jan. 14 with removal of 700 cc. of grossly bloody fluid. This was reported as showing pleural mesothelial cells. Hyperpyrexia developed and antibiotics were started without benefit. The patient's condition deteriorated, and he died Jan. 21, 1963.

DR. B. F. BENTON: At this time I am going to ask Dr. Keirns to show the x-rays because there are some important points I think he can bring out.

DR. M. M. KEIRNS: This patient had a number of x-ray examinations as many puzzling problems do. He had three examinations of his abdomen made in July on his first admission. Besides the calcification mentioned in the protocol, there is elevation of the dome of the liver. There is a rather amorphous calcification without particular detail which does not suggest a hemangioma. It is not typical of calcification that you see in the wall of an echinococcus cyst. I suppose it could be a residue of an old abscess. It certainly is not typical of the calcification that has been reported in adenocarcinoma of the liver, which is very fine, punctate calcification seen very poorly in a KUB, seen better in radiographs of the liver removed at autopsy. Similar calcification can be seen in carcinoma of the breast at times. The patient has considerable enlargement of the spleen as well as enlargement of the liver. The stomach, as reported in the protocol, is displaced 2 fingers breadth downward, and a lateral projection from the G.I. series shows no mass in the retroperitoneal area. The stomach is displaced posteriorly by a large mass; hence, it must be a large liver. He had three examinations of the gallbladder in August at the time of his first admission, and there was no visualization of the gallbladder. There were no opaque stones visible. Barium enema done on this same admission on August 7 was normal except for downward displacement of the colon by the spleen and large liver. At the time of his first admission, he had a completely normal-appearing chest. He had PA and lateral projections made at that time. The next chest film was made on September 5, when he was an out-patient, and it does show a small pleural effusion on the right side. So this pleural fluid which was a prominent feature at his terminal stage, apparently started accumulating in September.

Throughout the period of chest x-rays I believe the left lung field had remained clear and there is no visible pulmonary infiltration on the right. The right side demonstrates nothing except the massive accumulation of pleural fluid of some type.

DR. B. F. BENTON: We have here, then, an 18 year old male who dies after an illness which began as an acute illness, becoming a chronic illness within a year's time. I would like to go through the differential diagnoses that I considered in this case and leave my final diagnosis until the last.

First of all, I considered congenital hemolytic anemia (hemolytic jaundice), several aspects of which could fit very well. The symptoms, frequently, in this disease will come on during the second decade and after other illnesses. The exacerbations frequently follow respiratory infections, which this patient had. Usually there is abdominal pain at the crises, and this disease is characterized by splenomegaly, jaundice, anemia and increased red blood cell fragility. But any one of these may be absent in a given case. Usually the Vandenbergh gives an indirect reaction unless there is some complete obstruction of the ducts. Of course, these patients may develop bilirubin stones which may pass into the ducts and obstruct them. Some authors give incidence as high as 60% of the cases developing bilirubin stones in the gallbladder. The

bilirubin might go to 7.5 gms. without having any bilirubinuria. Of course, as well as occurring as a congenital or acquired thing, it has been reported following viral hepatitis.

Next, I would like to go on to complete extrahepatic obstruction (a complete obstruction in the biliary tree or in the duodenum). This can occur, of course, from tumor, calculi, or stricture, but it is usually tumor when it occurs. It is usually in an older age group, and they will typically have clay-colored stools with strongly positive direct Vandenbergh. They may occasionally have melena or occult blood in the stool from sloughing of the tumor. There is usually no urobilinogen in the urine even though they have a bilirubinuria. Itching of the skin is quite common and they usually have a much higher alkaline phosphatase than any other type of jaundice. If we can believe Courvoisier's law, in these cases there should be a distended gallbladder with a thin wall rather than the contracted gallbladder which was supposedly present in this case. Obstruction would explain a green liver with biliary cirrhosis, but here again the picture does not fit perfectly.

Next, I should like to consider an incomplete extrahepatic obstruction which can occur from calculi, from tumor, strictures, duodenal ulcers, diverticula, pancreatic disease, foreign body or parasites but usually from stones. This is a better possibility. We do occasionally see gallstones in people this young. It is uncommon, but it can occur. We may have a ball-valve action of the stone giving a fluctuating type of jaundice. There is spasm or edema around these stones at times which will make the jaundice intermittent or fluctuating. Of course, there may be spikes in urobilinogen excretion. This may be a diagnostic point if you have multiple tests for urobilinogen excretion. Commonly, these patients have chills and fever with leukocytosis and may have pain, which this patient did not have. They usually will have a positive direct Vandenbergh and the feces will usually be a light color. It is frequently complicated by cholangitis. Ordinarily, if the jaundice becomes very severe, itching is quite prominent. These patients may die from liver abscesses, which is a distinct possibility in this case. Ordinarily when they get cholangitis there is some elevation of the gamma globulin, and there was none in this case. However, it is possible that at the time the test was made he did not have any cholangitis.

Let's go on to some of the rarer diseases and some that are less likely. Weil's disease is seen very infrequently, and these patients usually have a very septic course. There is no history of rat-bite or anything of that sort in the history. Next, amoebic abscess; just because we do not have Endamoeba histolytica in the stools does not rule out an amoebic abscess in the liver. However, most amoebic abscesses of the liver will have spiking fever and a very septic course. Certainly, early in this protocol the patient does not fit into this particular category.

Next, an Echinococcus cyst of the liver should be considered. The x-ray is not typical. Usually these cysts will show a rim of calcification around the outer wall and give a fairly typical x-ray picture. Such things as Ascariasis and Schistosoma hematomia might cause liver damage and give a terminal picture similar to the one described. It may give an enlarged spleen with a Banti's Syndrome, but there is no history of the patient having lived in the West Indies or South American countries, as far as the protocol would lead you to believe. I think that these possibilities are rather remote.

Next, the consideration of a tumor of the liver either causing the initial picture or possibly developing later on in this boy's illness should be definitely considered. I feel that a benign tumor would not give this picture. Hepatoma, which is very rare in this country and particularly in this area, usually being seen in the 5th and 6th decades, does not seem a likely possibility. Of course, the biopsy does not rule it out because these tumors which frequently develop in a cirrhotic liver may not be scattered throughout the liver. In this biopsy on the anterior surface it could have been missed. These patients usually will have fever and anemia, which were not present, as well as the weight loss and jaundice which this patient showed, and the spleen

is seldom enlarged. They do run a rapid course, however, and die within 3 or 4 months.

Next, the diagnosis I would feel is the most likely, in spite of the fact that this is a C.P.C., is infectious hepatitis. First of all, the respiratory infections which this boy had possibly could be some of the prodromal signs of infectious hepatitis. We do not know whether he received any injections (with needles) of some antibiotics during these respiratory infections or whether he received other drugs such as Thorazine, etc. I do not believe that those probably played any part. This young man was most likely still in high school and had a very good opportunity to contact infectious hepatitis. His early symptoms of fatigue, jaundice, 8-10 lbs. weight loss, antipathy to tobacco, substernal discomfort, no itching, dark urine, could very well fit infectious hepatitis. After the icteric phase of the disease when he was noted to have some decrease in the size of his liver, he began his activities again, drinking alcoholic beverages and this may have played some part in what develops later. The lab values I feel could very well fit this disease. It would have been nice to know what a urobilinogen was in the early phases of the disease. This may be helpful in the early diagnosis of infectious hepatitis. Later on, since there seems to have been some doubt about the diagnosis, the duodenal aspiration of bile may have been helpful. Supposedly, if you have stones and have the proper collection, you will find calcium bilirubonate crystals. If you have a malignancy, you may find malignant cells and blood. If you have parasites, you may find parasites in the duodenal drainage. Supposedly in infectious hepatitis you find an increase in mucous shreds.

Next, I would like to consider the gross examination of the liver at the time the patient had the biopsy performed through a 6 cm. right rectus incision. That is rather a small incision to do any palpating of the common duct through, but I wouldn't be surprised that whoever did the biopsy may have put his hand down around the common duct and at least felt the gallbladder and common duct to see if there were any stones or possibly tumor in that region. The description of the liver as being 3 times normal size and having a greenish tint, I have always thought as indicating biliary cirrhosis. I understand that in some of these chronic hepatitis cases that go on to death there can be some green color present also. I suppose some of that may be due to the secondary biliary cirrhosis that they develop from obstruction of the ductal system. The biopsy report of "consistent with postnecrotic cirrhosis" I am going to be naive enough to believe. My diagnosis is infectious hepatitis with a postnecrotic cirrhosis. Then terminally, in the protocol, we lose track of him for 4-1/2 months, although on an outpatient basis he does have an x-ray made showing a small amount of effusion in the right base. I think it is unlikely that it is a malignant effusion or it would have developed more rapidly than in 4-1/2 months. I believe that we have evidence of some early liver failure in this young man, and when he comes back in the hospital probably with a change in his prothrombin time, has a pleural effusion, and probably gets a bloody tap of serosanguinous fluid, I think that's the most likely explanation of the serosanguinous fluid, and that may be the reason that he has grossly bloody fluid when he is tapped the second time. The cytological examination of the pleural fluid showing atypical cells may be due to some bacteria in the fluid, some changes in the cells on the preparation. I believe if he had actually had a malignant effusion that the laboratory would have probably been able to come up with a definite positive diagnosis of malignant cells on effusion. This culture showing Hemolytic Staph, coagulase negative, of course, could be contamination of the culture, but I believe it was probably accurate, that there was Hemolytic Staph there, but I am not certain about the coagulase negative. Sometimes the coagulases are incorrectly reported. In summary, I feel that this 18 year old developed an infectious hepatitis. He returned to his normal activities early and developed a cirrhosis that later on, because of the size of the liver, he developed a secondary biliary cirrhosis and terminally in addition to his liver failure, developed cholangitis and a liver abscess. Actually he did have a Staphlococcus in the

pleural fluid. Also, I think, even though the x-ray did not show it, he actually had bronchopneumonia.

DR. OTIS WARR: That was a very scholarly discussion, Dr. Benton. You might ask why we had the surgeon to discuss this case. It was on the medical service. First of all, the medical people did not do a very good job. They had a surgical consultatation and that wasn't too much help, and Dr. Benton has some enemies that put the needle on him to discuss this case since he had never honored us with a discussion, and I think we have been missing something because he has put a lot of work into it and he did a good job. The hour is late and if you will bear with us we will omit the discussion and have the pathologist show us the pictures of what he found at autopsy.

DR. MARVIN E. JOHNSON: At autopsy this was a well-developed, emaciated white male. Examination of the chest cavity revealed bilateral serosanguinous pleural effusion, 800 ml. and 200 ml., right and left respectively. Examination of the parietal pleura of the right chest cavity revealed multiple nodules measuring up to 0.8 cm. The right lung weighed 750 grams and the left weighed 520 grams. On cut surfaces of both lungs there was a patchy consolidation and purulent material in the bronchi. In the lower lobe of the right lung a circumscribed tumor mass was found which measured approximately 1 cm. in diameter. On the pleural surface of both leaves of the diaphragm there were nodules measuring up to 1.2 cm. in diameter. Examination of abdominal cavity revealed the left lobe of the liver to extend down to the iliac crest of the pelvis. Within the abdominal cavity there was 1200 ml. of serosanguinous fluid. The liver weighed 3,990 grams. The right lobe of the liver was coarse and multinodular; the lebt lobe of the liver's capsular surface was smooth.

The cut surface of the right and left lobe of the liver revealed a fairly circumscribed area within the right lobe which has undergone calcification. Also, the architecture of the right lobe has been replaced by dense fibrous connective tissue bands which have produced the coarse nodular appearance. In the left lobe there is a delicate, interlacing fibrous connective tissue stroma between the lobules. Histologically, there were areas of dense fibrosis of the right lobe with atypical hepatic cells infiltrating between strands of dense fibrous connective tissue and having eosinophilic granular cytoplasm with an occasional cell containing bile pigment.

In the microscopic sections of the right lobe where the calcification was noted on x-ray, there was dense fibrous connective tissue with atypical hepatic cells. It is felt that this process is connective tissue metaplasia undergoing calcification.

In sections of the left lobe of the liver delicate fibrous connective tissue stroma extends to each portal area. Within an occasional lobule a focal area of fatty metamorphosis is present. This is representative of Laennec's cirrhosis.

Histologic sections of the lungs show circumscribed metastatic nodules within the right lung parenchyma. Tumor in this section is so well differentiated that one can see a bile duct formation. Metastatic tumor was present on both the pleural and peritoneal surface of the diaphragm.

This is a case of Laennec's cirrhosis with hepatocellular carinoma and a focus of calcification in the right lobe. Metastases were to the lower lobe of the right lung, parietal pleura, peritoneum, and gallbladder. There was acute bronchopneumonia in both lungs.

A review of the biopsy material revealed the section to be predominately dense fibrosis with atypical hepatic cells as was noted in the autopsy material from the right lobe of the liver.

President's Page

IMPACT



DR. CANNON

Independent Medicine's Political Action Committee—Tennessee is a nonpartisan voluntary group of physicians, their wives and others.

The continuing efforts of those who would subvert the free enterprise system of medical practice and replace it with the scheming design of medical socialism have brought into focus the fact that if physicians are to succeed in maintaining medical freedom, they must have a strong legislative voice. If this is to be successful, it is also necessary to have a strong political voice.

The laws of our nation are made by representatives in Congress. They are the decision makers. The Congress of the United States will ultimately determine whether such legislation as the King-Anderson proposal (H.R. 3920) will be enacted. If we want laws favorable to the individual, we should select candidates who think and believe in the voluntary, not the compulsory way of life. Therefore it is imperative that our profession utilize every means at its disposal to assure that when such decisions are made, they are made by members of the Congress who are guided by the same basic philosophy as that of the medical profession: a dedication to the principles of free enterprise as opposed to domination and control by the federal government.

The physician and his family can and should become active in the party of their choice. Fortunately, the medical profession now has available a mechanism through which its members can participate in an effective, coordinated, state and nationwide program aimed at defeating the advocates of medical socialism and replacing them in the Congress with men who subscribe to the sound principles of constitutional government.

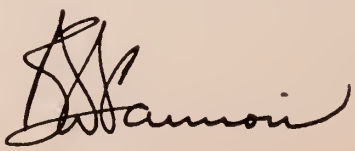
IMPACT is the vehicle for that movement in our state. The mechanism on the national level is the American Medical Political action Committee (AMPAC), created and supported by the AMA, a voluntary, non-profit, unincorporated group, whose membership consists of physicians, their wives, and others whose philosophy parallels that of Medicine's. Your State Medical Association recognizes the importance of this activity, and gave it its strong endorsement.

If IMPACT and AMPAC are to accomplish their objectives, they must first have the strength which it can only obtain through numbers—through membership.

IMPACT is launching its membership campaign this month. These organizations need and deserve your support. Your membership dollars will give meaningful support to the efforts of these organizations.

How is the money used? It is contributed to help elect men to Congress who have promised to support private enterprise—men who have integrity and work for the benefit of all people of our nation.

Our adversaries have strongly organized and are following along skillfully designed patterns in behalf of candidates of their choice. We must do equally as well in our program, skillfully coordinated to make Medicine's voice heard. We must give of our means, we must work in the political party of our choice in helping to select and elect men who have statesmen-like qualifications. We must be well organized outside of our medical associations to accomplish the education necessary to be effective. This can be done through IMPACT and AMPAC. I believe that each of you realizes the necessity of utilizing this avenue for influential and political pressure so that our objectives may be accomplished.



President

THE JOURNAL

OF THE
TENNESSEE MEDICAL ASSOCIATION

Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee

Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor, B-4211 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK AND POST GRADUATE EDUCATION

R. H. KAMPMEIER, M.D., Chairman
W. POWELL HUTCHERSON, M.D., Chattanooga
ROBERT P. MCBURNEY, M.D., Memphis
EUGENE J. SPIOTTA, M.D., Memphis
(Specialty Society Representatives to be named)

August, 1963

EDITORIAL

KERR-MILLS IN TENNESSEE TODAY

Some biased representatives of the fourth estate have so beclouded the current status of the implementation of the Kerr-Mills bill and the role the Tennessee Medical Association has had in this, that a brief recapitulation of its progress seems timely.

The Kerr-Mills bill became Law in August 1960. In October of that year Dr. Vaughan, Chairman of the Board of Trustees, and others met with representatives of the State of Tennessee at Gov. Ellington's request. Following this exploratory discussion, the Board of Trustees prepared recommendations for submission to a called meeting of the House of Delegates in December, 1960. The House approved the following for submission to the Governor.

"(1) Criteria for eligibility: (a) Persons 65 years of age and older who are single with an annual total income of not more than $1,000, and married persons with combined incomes of not more than $1,500 per year, with such persons having not more than $10,000 in assets.

(b) Eligible persons receiving hospital care under the provisions of this law shall pay the first $25 of each hospital bill.

(c) For the purpose of providing assistance in cases of catastrophic illness, the administrator of the program shall be authorized to make partial payments for medical care in behalf of those individuals with incomes above the level set forth in the program where adequate treatment for such illness would reduce the applicant's income available for non-medical goods and services below the designated income ceilings.

(2) Hospitalization: Inpatient hospital services for a maximum of ten days for any one illness except where additional certification by medical consultation and the attending physician, warrants in the interest of the patient an extension of these hospital services for additional ten-day periods.

(3) Nursing Home Care: Nursing home care may be provided for those eligible. The eligible persons who are impaired to the extent that they require bed or wheel chair care in a nursing home may receive benefits no greater than those set forth in the current schedule of the Department of Public Welfare.

(4) Drugs: Eligible persons be provided outpatient drugs within a limited formulary.

(5) Outpatient Department: Eligible persons shall be provided laboratory and diagnostic x-ray services performed either in a doctor's office or in a hospital outpatient department.

"In addition, the House recommended that the administration of the Medical Care for the Aged Program be administered by the Department of Public Health under contract with the Department of Public Welfare and that a 12-member Advisory Board be established to be composed of six physicians appointed by the Board of Trustees of the Tennessee Medical Association and six members appointed by the Governor. It was suggested that the fields of hospital administration, health insurance, and dentistry might advantageously be represented on this board. It was further recommended that the advisory board meet in regular session at least once quarterly and that the term of appointment be for three years, with the appointments staggered in such a way that two physicians and two executive appointments shall be made each year.

"It should be noted that the House of Delegates voted not to accept from any government funds appropriated to the medical assistance to the aged fees for the services which physicians might render to patients under the MAA program. Physicians' fees are included in the Kerr-Mills Law if adopted by a state; however, the action of the Tennessee Medical Association was not to include physicians' fees."

Following enabling legislation passed by the Tennessee General Assembly, Governor Ellington announced a limited program for assistance to the aged, effective July 1961, of the following:

(1) Services provided:
   A. Ten days hospitalization a year.
   B. A limited drug formulary for diabetics and heart patients.

(2) In the initial program, criteria for eligibility, as promulgated by the Tennessee Department of Public Welfare, was as follows:
   A. The person must be 65 years of age or over.
   B. He must be unable to pay for medical care.
   C. A practicing physician must certify the patient's need for hospitalization or drugs.
   D. He cannot be an inmate of a State Mental or TB Hospital.
   E. The total annual income for a single person cannot exceed $1,000 per year or $1,500 for married couples.
   F. The same limits will be placed on personal property held by the applicant—stocks or bonds, cash on hand or in a bank, insurance with cash value, etc.
   G. Eligible persons may own real estate provided that their equity in the property does not exceed $5,000 and the total value of the property is not more than $7,000.
   H. Coverage under a hospitalization policy will be considered a resource, but such coverage will not automatically render a person ineligible.
   I. A person admitted to a hospital under the MAA program is required to pay the first $100 of the hospital bill; however, he may apply towards this any prepaid hospital insurance he may have.

T.M.A. representatives met with those of the Public Welfare Department for discussions, and in February 1962 the program was broadened so:

(1) The deductible amount to be paid by the patient was reduced from $100 to $25.00.

(2) The value of real estate which an eligible person might own was increased from the $5,000 equity and total value of $7,000 to an $8,000 equity and a total value of not more than $10,000.

(3) The drug formulary was expanded to include antibiotics and tranquilizers.

In July 1962, hospitalization per year was increased from 10 to 15 days and admission for life endangering illness was permitted in addition to that for acute illness or disease. Subsequently, further conferences between T.M.A. and State government led to increasing Nursing Home Care up to 90 days per any one year. In February, during the 1963 session of the General Assembly, members of the medical profession met with Governor Clement in the hope of expanding the provisions of the MAA program, continuing proposals made to him before his election. The recommendations were:

(1) To increase income limitations from $1,000 for single and $1,500 for married persons to $1,300 for single persons and $1,800 for married persons.

(2) That the payment of $80 per month toward the cost of nursing home care be raised to $150 regardless of illness or condition.

(3) Upon certification by the physician, that an additional five days be added to the present fifteen days allowed for hospitalization.

(4) That a broadened drug formulary be adopted.

(5) Recommended that the State be urged to employ a director for the Medical Assistance to the Aged Program in order that it could be more effectively implemented throughout the State. The T.M.A. offered its assistance in this regard.

On June 9, 1963 the Association's Consultative Committee met with officials of the State in the hope of expanding the MAA program as proposed earlier. The Department of Public Welfare had already proposed the following recommendations for implementation on July 1, 1963:

(1) Further expansion of the drug formulary.

(2) Changed the number of days of hospitalization to ten; however, upon certification of a physician, the number of days will be extended ten additional days with no more than twenty days total provided in any one year.

(3) Increase in nursing home payments based upon standard of service. Payments to be as follows:
   Class 1—$95.00 per month supplemented to $150.00
   Class 2—$110.00 per month supplemented to $175.00
   Class 3—$125.00 per month supplemented to $200.00
   Nursing homes are to be reclassified in the above categories.

This is where the Medical Assistance to the Aged program stands. It has not moved forward with the speed which seemed desirable to the Tennessee Medical Association and which it has urged.

If we as citizens and doctors subscribe to the age-old philosophy of providing care to the needy we must insist upon the cooperation of not only our colleagues, but also of our elected representatives in terms of administration of a program and the provision of the needed funds. In one way or another assistance will be given the aged in the area of medical care.

R. H. K.

TENNESSEE MEDICAL ASSOCIATION 1963-1964 STANDING COMMITTEES

Committee on Scientific Work and Postgraduate Education—R. H. Kampmeier, Chairman, Nashville; W. Powell Hutcherson, Chattanooga; Robert P. McBurney, Memphis; Eugene J. Spiotta, Memphis.
(Specialty Representatives To Be Named)

Committee on Hospitals—Robert M. Miles, Memphis, Chairman (1965); James A. Burdette, Knoxville (1966); C. D. Hawkes, Memphis (1965); Harry T. Moore, Jr., Nashville (1965); Chester K. Jones, Jackson (1964) John W. Adams, Jr., Chattanooga (1964); Thomas K. Young, Jr., Columbia (1964) George L. Smith, Winchester (1965) Granville Hudson, Nashville (1966); Brian T. Shorney, Nashville (1966).

Legislative and Public Policy Committee—Tom E. Nesbitt, Chairman, Nashville (1964); H. L. Monroe, Erwin (1965); Charles C. Smeltzer, Knoxville (1966); George K. Henshall, Chattanooga (1964); Sam H. Hay, Murfreesboro (1965); K. M. Kressenberg, Pulaski (1966); John G. Riddler, Jackson (1965); Byron O. Garner, Union City (1966); W. David Dunavant, Memphis (1964). **(Appointed for One-year Terms)**—Alvin J. Ingram, Memphis (1964); Perry J. Williamson, Knoxville (1964); Robert E. Baldwin, Chattanooga (1964); Warren B. Henry, Chattanooga (1964); Chas. C. Trabue, IV, Nashville (1964); James T. Callis, Crossville (1964); Thomas F. Frist, Nashville (1964); E. T. Brading, Johnson City (1964); O. M. McCallum, Henderson (1964); A. Roy Tyrer, Memphis (1964); Clifton Greer, Nashville (1964); Charles A. Trahern, Clarksville (1964); R. H. Kampmeier, Ex-officio, Nashville (1964).

Liaison Committee to the Public Health Department—Wm. A. Hensley, Chairman, Cookeville (1966); C. D. Hawkes, Memphis (1965); William I. Proffitt, Cleveland (1967); Lamb B. Myhr, Jackson (1967); Thomas S. Weaver, Nashville (1964).

Committee on Insurance—Wm. T. Satterfield, Chairman, Memphis (1965); Augustus McCravey, Chattanooga (1964); Garth Fort, Nashville (1966); George L. Inge, Knoxville (1964); B. F. Byrd, Sr., Nashville, Consultant.

Committee on Cancer—B. F. Byrd, Jr., Chairman, Nashville (1965); Edwin W. Cocke, Jr., Memphis (1965); Ralph H. Monger, Knoxville (1964); Hollis E. Johnson, Nashville (1964); S. S. Marchbanks, Chattanooga (1965); G. Sydney McClellan, Nashville (1965); John M. Higgason, Chattanooga (1965); Homer P. Williams, Bristol (1965); Cyrus C. Erickson, Memphis (1965).

Committee on Memoirs—Henry L. Douglass, Chairman, Nashville (1965); A. M. Patterson, Chattanooga (1966); S. Fred Strain, Sr., Memphis (1965).

Committee on Health Insurance—B. K. Hibbett, III, Chairman, Nashville; Joseph W. Johnson, Jr., Chattanooga; Robert N. Sadler, Nashville; E. L. Caudill, Jr., Elizabethton; James J. Callaway, Nashville; Wm. A. Garrott, Cleveland; Greer Ricketson, Nashville; Harry T. Moore, Jr., Nashville; William G. Crook, Jackson; J. Cash King, Memphis; Thomas F. Parrish, Nashville; W. T. Satterfield, Memphis; Howard A. Boone, Memphis; Robert N. Buchanan, Jr.,; Nashville; Elgin P. Kintner, Maryville; H. K. Turley, Memphis; A. Roy Tyrer, Memphis; Gilbert A. Rannick, Johnson City; John G. Riddler, Jackson; Charles R. Zirkle, Knoxville; Mr. Clyde York, Columbia; Mr. Charles L. Cornelius, Sr., Nashville; R. H. Kampmeier, Ex-officio, Nashville.

Executive Sub-Committee—B. K. Hibbett, III, Chairman, Nashville; Robert N. Sadler, Nashville; James J. Callaway, Nashville; Thomas F. Parrish, Nashville; Mr. Charles L. Cornelius, Sr., Nashville; R. H. Kampmeier, Ex-officio, Nashville.

Advisory Committee to the State Department of Public Welfare—Aubrey Harwell, Chairman, Nashville (1965); Carl A. Hartung, Chattanooga (1967); F. T. Billings, Jr., Nashville (1964); Harold J. Starr, Chattanooga (1966); Joseph J. Baker, Nashville (1966).

Communications and Public Service Committee—R. A. Calandruccio, Chairman, Memphis (1964); Addison B. Scoville, Jr., Nashville (1964); Malcolm Campbell, Johnson City (1965); Wm. A. Garrott, Cleveland (1966); Wm. K. Owen, Pulaski (1964); Blair D. Erb, Jackson (1965); Roy L. McDonald, Oneida (1964); Charles L. Clarke, Memphis (1966); Morse Kochtitzky, Nashville (1966); Carson Taylor, Lawrenceburg (1966); R. H. Kampmeier, Ex-officio (1964).

Members State-at-Large—Walter Benedict, Knoxville (1965); J. Kelley Avery, Union City (1966); Augustus McCravey, Chattanooga (1964); Thomas F. Frist, Nashville (1964); Geo. D. Dodson, Jackson (1966); Herman J. Kaplan, Nashville (1966).

Executive Sub-Committee—R. A. Calandruccio, Chairman, Memphis (1964); Addison B. Scoville, Jr., Nashville (1964); R. H. Kampmeier, Ex-officio (1964); Thomas F. Frist, Nashville (1964); Morse Kochtitzky, Nashville (1966); Herman J. Kaplan, Nashville (1966).

Grievance Committee—Harmon L. Monroe, Chairman, Erwin (1964); W. O. Vaughan, Nashville (1965); William J. Sheridan, Chattanooga (1966).

Rural Health Committee—Julian C. Lentz, Jr., Chairman, Maryville (1965); Wm. N. Cook, Columbia (1966); Robert H. Elder, Cedar Hill (1966); John B. Dorian, Memphis (1966); Eugene M. Ryan, South Pittsburg (1966); Mr. Vernon Darter, Knoxville; Mr. Kenneth Cherry, Columbia.

Committee on Tennessee Medical Foundation—Harrison J. Shull, Chairman, Nashville (1966); Thomas G. Dorrity, Memphis (1966); B. M. Overholt, Knoxville (1966); Julian K. Welch, Jr., Brownsville (1964); Daugh W. Smith, Nashville (1964); Ralph H. Monger, Knoxville (1964); Robert N. Buchanan, Jr., Nashville (1965); J. Paul Baird, Dyersburg (1965); John E. Kesterson, Knoxville (1965).

SPECIAL COMMITTEES

Consultative Committee on Administration of Voluntary Prepaid Medical Care Plans—Carl N. Gessler, Chairman, Nashville; R. B. Wood, Knoxville; H. P. Clemmer, Milan; William R. Bishop, Chattanooga; J. J. Range, Johnson City; George L. Smith, Winchester; J. Palmer Moss, Memphis; Garth E. Fort, Nashville; Baker Hubbard, Jackson; Howard A. Boone, Memphis.

Committee on Disaster Planning—George R. Livermore, Jr., Memphis, Chairman; Harmon L. Monroe, Erwin; Fred D. Ownby, Nashville; Bruce R. McCampbell, Knoxville; Charles W. Reavis, Chattanooga; Nat Winston, Chattanooga; Henry Packer, Memphis; Wm. F. Gallivan, Knoxville; John Beveridge, Nashville; Billy N. Golden, Kingsport.

Committee on Occupational Health—George E. Duncan, Chairman, Nashville; Moore J. Smith, Chattanooga; Peter J. Flippen, Tullahoma; Louis G. Britt, Memphis; H. L. Monroe, Erwin; Dudley G. Lockwood, Jr., Memphis; Alfred N. Costner, Johnson City.

Liaison Committee to the United Mine Workers of America—John H. Saffold, Chairman, Knoxville; Cecil E. Newell, Chattanooga; B. M. Overholt, Knoxville; Charles P. Wofford, Johnson City.

Advisory Committee to the Woman's Auxiliary—Roland H. Myers, Chairman, Memphis; Robert L. Akin, Knoxville; Fred E. Cowden, Nashville; E. E. Edwards, McKenzie.

Committee on Blood Banks—Merlin L. Trumbull, Chairman, Memphis; L. W. Diggs, Memphis; John W. Adams, Jr., Chattanooga; David K. Gotwald, Nashville; R. J. Leffler, Knoxville; Thomas P. Potter, Johnson City.

Committee on Governmental Medical Services—E. G. Kelly, Chairman, Memphis; J. Paul Baird, Dyersburg; Thurman Shipley, Cookeville; Cleo M. Miller, Nashville; Charles C. Smeltzer, Knoxville; George W. Holcomb, Jr., Nashville; Thomas L. Waring, Memphis; C. Kenneth Slade, Johnson City; Charles N. Hickman, Bells.

Committee on Mental Health—Frank H. Luton, Chairman, Nashville; Joseph W. Johnson, Jr., Co-Chairman, Chattanooga; E. L. Caudill, Jr., Elizabethton; Robert M. Foote, Nashville; Hollis C. Miles, Chattanooga; Joseph J. Baker, Nashville; Dan Sanders, Nashville; Richard F. Kelsey, Memphis; Carl C. Gardner, Jr., Columbia; John D. Griffith, Clarksville; O. S. Luton, Erin; P. J. Sparer, Memphis; Clifton E. Irwin, Knoxville; Robert G. Jordan, Memphis; Robert B. Hagood, Chattanooga.

Committee on Health Project Contest—Lawrence L. Cohen, Chairman, Memphis; William N. Dawson, Maryville; George K. Henshall, Chattanooga; Mrs. W. E. Van Order, Chattanooga; Mrs. James K. McQuire, Memphis; Mrs. James A. McGuire, Memphis.

Committee on Sight Conservation—Fred Rowe, Jr., Chairman, Nashville; David H. Turner, Chattanooga; Reese W. Patterson, Jr., Knoxville; William H. Roberts, Humboldt; James W. Wilkes, Jr., Columbia; Chas. O. Parker, Johnson City; Howard R. Kennedy, Clarksville; G. H. Berryhill, Jackson; William A. Garrott, Cleveland; Roland H. Myers, Memphis.

Tennessee Committee for the American Medical Education and Research Foundation—David S. Carroll, Chairman, Memphis; B. F. Byrd, Jr., Nashville; D. T. Rolfe, Nashville.

Interprofessional Liaison Committee—Robert M. Ruch, Chairman, Memphis; Fred P. Sage, Memphis; Robert J Allen, Elizabethton; William H. Edwards, Nashville; W. Houston Price, Chattanooga.

Committee on Youth and Education—John H. Burkhart, Chairman, Knoxville; Robert G. Brashear, Knoxville; Robert M. Foote, Nashville; Dan Sanders, Nashville; Minnie R. Vance, Chattanooga; Ben D. Hall, Johnson City; Lawrence L. Cohen, Memphis; W. M. Phillips, Trenton; J. Kelley Avery, Union City.

Committee on Medicine and Religion—H. Dewey Peters, Chairman, Knoxville; T. G. Pennington, Nashville; Gilbert J. Levy, Memphis; J. Malcolm Aste, Memphis; Ira L. Arnold, Chattanooga.

DEATHS

Dr. James L. Hamilton, 65, Gadsden, Alabama, died July 21st at his home as a result of a heart attack. Dr. Hamilton, a former member of the Tennesse Medical Association, was medical director of the District Four Tuberculosis Hospital in Gadsden.

Dr. E. L. Roberts, 92, Nashville, died July 7th at St. Thomas Hospital.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Memphis-Shelby County Medical Society

The regular monthly meeting of the Society was held in the auditorium of the Institute of Pathology on July 2nd. The program entitled, "The Patient's Right to Die: Moral and Spiritual Aspects of Euthanasia" was presented by Dr. John H. McClanahan, Pastor, First Baptist Church, Blytheville, Arkansas.

A meeting of the House of Delegates was held at 8:00 P.M.

Chattanooga-Hamilton County Medical Society

The Society held its monthly meeting in the Interstate Building where the following scientific program was presented. "Systemic Lupus Erythematosus in Siblings" by Dr. Robert C. Thompson; "Cancer Pain and Palliation" by Dr. John M. Crowell; and a case report by Dr. Cecil E. Newell.

Knoxville Academy of Medicine

The Society's meeting was held on July 9th in the Academy Building. The Knoxville Bar Association presented a program on two subjects. The good samaritan doctrine—emergency treatment responsibility and liability was discussed. Also, hypothetical questions and opinion where the doctor is the treating physician and the non-treating physician was covered with respect to scope and extent of these questions.

The Society's special health committee has held a meeting to plan for its mass Sabin polio immunization program. The committee is headed by Dr. John Winebrenner and Dr. P. M. Huggin, Co-chairmen.

The Knoxville Academy of Medicine has voted to make a study of the newly approved trivalent type oral polio vaccine and whether to use it in the mass immunization program set for October.

NATIONAL NEWS

The Month in Washington
(From the Washington Office, AMA)

The Department of Health, Education and Welfare is well along in its investigation of krebiozen, the controversial product which has been distributed as an anticancer investigational drug.

HEW disclosed its progress in the investigation in answering a suit filed in federal district court by Dr. Stevan Durovic, a refugee Yugoslav physician who maintains he discovered krebiozen. The court denied Durovic's petition for a temporary injunction against the Food and Drug Administration which would have hampered the federal government's investigation of krebiozen.

HEW said it is trying to answer the basic question: Is krebiozen effective? To get the answer, HEW said, "it is necessary to know precisely what krebiozen is, how it is manufactured, and what controls are used to insure its safety, efficacy, sterility, purity, and identity. The results of tests on animals and full details of the case histories of tests on human patients must be known.

"It is the responsibility of the manufacturer to make this information available to FDA. The sponsors of krebiozen have been advised repeatedly since the filing of their first new drug application in 1954 that information submitted by them has not met the foregoing requirements."

FDS personnel began the government investigation last February by copying 508 case history records furnished by Durovic and for each of which it was claimed that krebiozen had been effective in some measure. The FDA then set out to obtain the

full medical facts and records about each case. This entailed visits to patients, physicians, hospitals, laboratories, pathologists, surgeons, radiologists, and anyone else associated with the treatment of these patients.

"About half of the 508 cases copied by the Food and Drug Administration and NIH officials have already been thoroughly investigated by the FDA's field staff," the HEW said in a July 3 report. FDA expects to complete this phase of the investigation within a few weeks.

"As these completed cases are received by FDA in Washington, they are reviewed by medical officers of the Bureau of Medicine, FDA, and a summary made of each case together with the physicians' conclusions as to whether the claim of benefit is justified by objective evidence. The review of about 100 cases by these physicians has been completed to date.

"Physicians of the National Cancer Institute will make a second independent review of each case, consulting when necessary with outside experts in the particular fields of treatment involved to determine whether any claim of benefit is justified.

"These reviews will be the basis on which judgment will be made by scientists at the National Cancer Institute as to whether clinical testing by NCI is justified."

Durovic filed his suit for an injunction after FDA officials undertook to acquire information relating to the manufacture, packaging, processing, and distribution of krebiozen. In this inspectional phase of the investigation, the FDA seeks to determine the composition of the product, how it is made, the controls exercised in the manufacture to insure uniformity of composition, purity, sterility, potency, stability and safety, the labeling employed, the distribution of the product, and other matters bearing on the legality of distribution of the product under federal law.

The developers of krebiozen claim it is made from a yellowish-white powder extracted from the blood of a horse. This powder is dissolved in mineral oil and the combination is put into a glass ampule which holds one cubic centimeter.

Some of the powder substance was obtained from horses killed in Argentina and some of it from horses at Rockford, Illinois. The blood of the horses killed at Rockford was used to prepare two batches of the powder in the Ken-L Ration Division of the Quaker Oats Co. in 1959 and 1960, the government brief said. The division makes dog food.

"The conditions of pretreatment inspection of the horses, of injecting the animals, of selection of animals for bleeding, of bleeding, and of handling the blood and plasma met none of the basic requirements of current food manufacturing practice," the brief said.

★

The American Medical Association warned that research on new drugs could be seriously hampered by too exacting regulation and supervision by the federal government.

Dr. Hugh H. Hussey, director of the AMA's Division of Scientific Activities, told a Senate subcommittee that "medicine and the pharmaceutical industry have established an outstanding record, particularly over the last two decades, in the discovery, development and use of life-saving, health-saving, and pain relieving drugs."

"The benefit to our people from such discovery is so great in terms of reduced mortality and the increased control of numerous diseases that it is difficult to speculate what the state of our nation's health would be without them," he added.

Dr. Hussey said the AMA was well aware of the responsibilities of private industry in drug research, developing and marketing. But these activities, particularly research, could not be stereotyped, he said.

"There are few men and few organizations with the talent, experience, resources, knowledge and courage to carry out drug research from the initial step to the point where the drug is available to save the lives and health of our citizens," Dr. Hussey said. "The manner in which these men and organizations operate is highly individualistic. It is, therefore, important to insure protection of the creativity of such persons

which could be harmed by standardization of their procedure through unnecessary and overly burdensome governmental regulation and supervision.

"Thus, in the best interests of the health care of the American people, consideration must be given to the benefits, accomplishments and the work and practical problems of the drug investigators and pharmaceutical industry, as well as to the responsibilities of the Food and Drug Administration, in assessing and solving problems in this field. The AMA does not, and we are sure that no one in the government, in the pharmaceutical industry or in the scientific professions involved, want to see a single individual injured by an unsafe drug.

"We are equally sure these same groups are similarly opposed to any regulatory measures which would delay or prevent the development of lifesaving and health-saving drugs. Thus, in considering the proposed regulations governing investigational new drugs, we believe that there is only one ultimate test to be applied: What procedures and what actions of government, industry and the scientific professions will lead to the quickest discovery and most effective utilization of drugs for the greatest benefit of the people of this country in their constant struggle against disease and death?"

MEDICAL NEWS IN TENNESSEE

Health Survey Requested for Chattanooga

Representatives of thirteen Chattanooga community service and health organizations requested the Metropolitan Council for community services to make application for Chattanooga to become one of twenty U.S. cities to participate in a proposed set of pilot studies on community health facilities. The project would be under the direction of the National Commission on Community Health Services.

The study would be conducted by Chattanooga citizens if the city is accepted, with the National Commission offering consultative services, providing questionnaire forms, assisting in tabulating the data, and preparing the report.

New Addition of Bristol Memorial Hospital Dedicated

Dedication ceremonies for the new $2,300,000 wing of Bristol Memorial Hospital was held on June 30th with Dr. James O. Ward, U.S. Public Health Service, Atlanta, Georgia, being the principal speaker.

The new addition contains 83 new patient beds, making a total of 350 beds available for patient care.

In addition to the new wing, the entire hospital was renovated in the building program. The medical staff of the Memorial Hospital includes 74 physicians.

Upper Cumberland Medical Society Meeting

The Upper Cumberland Medical Society held its 69th annual meeting on June 18-19, at the Cloyd Hotel in Red Boiling Springs. Dr. Kirkland Todd, Nashville, presided. The following scientific program was presented:

Treatment of Tuberculosis Infection to Prevent the Disease, by Dr. R. H. Hutcheson, Nashville, Discussed by Dr. Robert McCracken, Nashville; Fractures of the Neck of the Femur in Children, by Dr. C. M. Hamilton, Nashville, Discussed by Dr. John J. Killeffer, Chattanooga; The Ruptured Liver, by Dr. Herschel A. Graves, Jr., Nashville; Some Aspects of the Major Amputation and Prosthesis Problem with Lantern Slides, by Dr. John J. Killeffer, Chattanooga, Discussed by Dr. S. Benjamin Fowler, Nashville; Obstructing Lesions of the Esophagus, by Dr. James P. Lester, Nashville, Discussed by Dr. Thayer Smith Wilson, Carthage; The Diagnosis and Management of Urinary Tract Trauma, by Dr. John M. Tudor, Nashville, Discussed by Dr. Phillip P. Porch, Nashville; Current Surgery for Occlusive Artrial Disease, by Dr. Malcolm Lewis, Nashville, Discussed by Dr. Douglas H. Riddell, Nashville; Unusual Surgical Problems in the Newborn, by Dr. Sam E. Stephenson, Nashville, Discussed by Dr. John H. Foster, Nashville; Cortisone and Cortisone-Like Drugs, by Dr. W. S. Coppage, Nashville; Cancericidal or Anti-Cancer Drugs, by Dr. Malcolm Lewis, Nashville; Hypnotic and Pre-Sedation Drugs, by Dr.

J. Sumpter Anderson, Nashville; Autonomic Drugs—Blocking Agents, by Dr. Allen D. Bass; Endocrine Pharmacology (Metabolic Drugs), by Dr. W. S. Coppage, Nashville; Hypolglycemic Agents, by Dr. Morse Kochtitzky, Nashville; Diuretics and Anti-Hypertensive Drugs, by Dr. Fred Goldner, Nashville; Cardiac Agents, by Dr. Crawford Adams, Nashville; and Psychopharmacology, by Dr. Robert Adams, Nashville.

Meharry Medical College

Dr. John B. Hyde, associate professor of anatomy at Meharry Medical College, has been awarded an $8,760 grant by the National Institute of Neurological Diseases and Blindness to investigate the blood vessels of the cerebral cortex.

Vanderbilt University School of Medicine

The Vanderbilt University School of Medicine has received a five-year grant of $408,000 from the National Institute of Mental Health to establish a training program in psychopharmacology. The program is designed to train researchers for investigation into how drugs affect the brain and develop new knowledge in one of the fastest moving fields of modern medicine. Dr. Allan D. Bass, Chairman of the Department of Pharmacology, will direct the program.

University of Tennessee College of Medicine

The Medical Units were allotted $4,046,353 for projects now under construction and acquisition of land in the Memphis Medical Center for future buildings at a meeting of the Board of Trustees on June 20. The funds will be used for the purchase of land and for the James K. Dobbs Medical Research Institute under construction, as well as other projects.

★

Dr. L. W. Diggs, professor of medicine and chairman of the Division of Medical Laboratories, has been named Goodman Professor. As Goodman Professor, he will receive a yearly supplement to his salary made available from the Goodman Fund for the "Great Teacher."

Two associate professors have been promoted to full professors. Dr. James Sherman Davis has been advanced to professor of anatomy, and Dr. Floyd W. Dunn, professor of biochemistry. Other appointments: Dr. Clark Edward Corliss from assistant professor to associate professor of anatomy, Dr. Robert Barker from assistant professor to associate professor of biochemistry, and Dr. Richard C. Moon from assistant professor to associate professor of physiology. Drs. Alvin J. Cummins and Glenn M. Clark have been promoted to professorship.

★

The College of Medicine and School of Basic Medical Sciences spent 45% more for research, teaching and training grants during the fiscal year 1961-62 than they did in 1960-61. The Dean said total medical college expenditures increased from $4,667,635 to $5,809,185.

★

Dr. Louis G. Britt has joined the staff as instructor in surgery, and plans to combine teaching with research and private practice.

★

Dr. Stanley E. Crawford, associate professor of Pediatrics, has been made full-time Director of Pediatric Training at the Le Bonheur Children's Hospital.

★

The clinical staff has been increased full time from 78 to 126 faculty members, an increase of about 62% during the fiscal year 1961-62. There are also 78 full-time teachers in the basic medical science departments for a total of 204 full-time teachers. Another 250 Memphis physicians are on the volunteer staff and contribute teaching time whose estimated value is a half-million dollars a year.

Knoxville Society of Internal Medicine

The Society held a recent meeting in the Andrew Johnson Hotel in Knoxville where Dr. James V. Rogers, Jr., associate professor of radiology at Emory University School of Medicine, Atlanta, Georgia, spoke on the subject, "Clues to Cardiac Disease on Chest Roentgenography."

Department of Public Health

July 3, 1963

SPECIAL LETTER
FROM: Director Health Mobilization (Civil Defense)
SUBJECT: Report on Medical Self Help Training Program

For informational purposes this reporting is submitted to the members of the STEERING COMMITTEE FOR THE MEDICAL SELF HELP TRAINING PROGRAM to denote the current progressive status of the Medical Self Help Training Program throughout the State of Tennessee.

During the month of March 1963, the State of Tennessee led the Nation in number of personnel graduating from the Medical Self Help Training Program. A *cumulative* report covering period of 1 March through 31 May indicated Tennessee was second in the Nation.

Through the State Health Mobilization office, our local public departments and Civil Defense agencies; the local city and county school superintendents and principals are being contacted regarding inclusion of the Medical Self Help Training Program in the school curriculum. Prior to this contact a letter was issued to all school superintendents throughout the State by the State Commissioner of Education endorsing the Medical Self Help Training Course for consideration on inclusion within the local school curricula. This letter, and individual contact, has proven most successful thus far as whole-hearted cooperation is being obtained from the school officials—with plans for inclusion in the school curriculum. All school officials will be contacted prior to commencement of the next year and judging by the participation and cooperation already received by those contacted, it is anticipated the majority of our school systems will include the course in their curricula.

There has been exceptionally good assistance, endorsement of the program and cooperation received from the departments and association of which you, as members of the Steering Committee, so well represent. It is hoped this cooperation and assistance will continue and added efforts be put forth to further promote this important training program.

All possible resources are being utilized to promote the Medical Self Help Training Program on a thorough distribution basis throughout the State and will continue to be done in an effort to attain our ultimate goal. That is to train at least one adult member of every family in Medical Self Help preparedness for emergency situations which may well arise.

Any recommendations, suggestions and/or advice on any means one may have regarding further promotion of the program will be appreciated. The assistance of each of you in operating through your represented department or association is of great value to the training program.

If, at any time, information or assistance may be provided any of your represented associations, i.e.—group lecture, film illustration, demonstration, panel discussion, etc.—please feel free to request it as we will be only too happy to oblige.

Through wide area representation the Steering Committee affords throughout the State this Medical Self Help Training Program can be, and is, well promoted on a rapidly progressive basis.

Very truly yours,
James H. Littlejohn
Director Health Mobilization
(Civil Defense)

JHL/par

PERSONAL NEWS

Certificates of Fellowship in the American College of Chest Physicians were conferred upon four Tennessee doctors at the 29th annual meeting of the College in Atlantic City. Receiving certificates were: **Dr. Bobby H. Ginn**, Memphis; **Dr. Benjamin F. Scott**, Memphis; **Dr. Marvin J. Rosenblum**, Nashville; and **Dr. John L. Sawyers**, Nashville.

Dr. Worth Dunn, a graduate of the University of Tennessee College of Medicine, is associated with **Dr. Clyde Alley**, Nashville, in the practice of otolaryngology. Dr. Dunn is a Diplomat of the American Board of Otolaryngology.

Dr. Edgar D. Akin, Old Hickory, has joined the staff of the Lewis County Hospital in Hohenwald.

Dr. Cecil D. Rowe, Jefferson City, has started his medical practice in Sevierville. He was formerly associated with **Dr. John Ellis** in Jefferson City.

Dr. James G. Hughes, Memphis, professor and chairman of the Department of Pediatrics of the UT College of Medicine, is the author of a new book, "Synopsis of Pediatrics."

Dr. G. B. Higley, Memphis, recently addressed the Memphis Plaintiffs Lawyers Association.

Dr. C. Robert Clark, Chattanooga, addressed the monthly meeting of the Hamilton County Young Republican Club.

Dr. E. Converse Peirce II, Knoxville, assumed the office of President of the American Society for Artificial Internal Organs at its annual meeting in Atlantic City, New Jersey.

Dr. J. C. Gaw has reopened his office for the practice of medicine in McMinnville, following a two-year period of surgical training.

Dr. John R. Jones has joined **Dr. A. Brant Lipscomb**, Nashville, in the practice of orthopedic surgery.

Dr. Clyde A. Kyle, Jr., has opened an office for the practice of urology at Cleveland.

Dr. W. E. Scribner, Kingsport, was a recent guest speaker at the Kingsport Bar Association meeting.

Dr. L. M. Freeman and **Dr. William A. Hensley** have been named secretary-treasurer and vice-president respectively of the Upper Cumberland Medical Society.

The McNairy County General Hospital staff is composed of **Dr. James H. Smith**, Chief of Staff; **Dr. Harry L. Peeler**, Assistant Chief of Staff; **Dr. Montie E. Smith, Jr.**, secretary.

Dr. Homer Isbell, Maryville, was recently honored as a member of the team of doctors who gave a month of their services for patient care in Algeria.

Nashville physicians appointed by the Mayor to serve on the Metropolitan Board of Health include: **Dr. Otto Billig, Dr. Addison B. Scoville, Jr.**, and **Dr. W. O. Vaughan** who was appointed chairman of the Board.

Dr. Harry Stone, Chattanooga, addressed a special meeting at the Park City Baptist Church in Fort Oglethorpe on the subject, "Need for and Methods of Early Detection of Cancer."

Dr. R. J. Allen has been elected chief of staff of Carter County Memorial Hospital in Elizabethton. Other officers are **Dr. Dillard M. Sholes, Jr.**, vice chairman and **Dr. Joyce May**, secretary.

Dr. James H. Lipsey, Jr., Memphis, will serve as chief surgeon at the Saigon Orthopedic Rehabilitation Center in South Viet Nam, operated by the People to People Health Foundation's project H.O.P.E.

Dr. George E. Cooke has joined **Dr. Edwin B. Anderson**, Nashville in the practice of internal medicine.

Dr. J. Kenneth Jacobs, Nashville, announced the opening of his office for the practice of general, thoracic, and cardiovascular surgery.

Dr. Don A. Cannon, Eastdale, has opened his office for the general practice of medicine.

Dr. R. C. Kash, Lebanon, addressed the second annual Junior Engineering and Science Summer Institute at Tennessee Polytechnic Institute, Cookeville.

Dr. James Worden, Knoxville, has been presented the Sertoman of the Year Award in Knoxville.

Dr. J. O. Walker, Franklin, has been honored for his service as a physician that has spanned a 50-year period.

Dr. Sam Horner, Cleveland, has been presented the Sertoma Club's coveted Service to Mankind Award.

Dr. Lloyd Ramsey has been named president-elect (1964-65) of the Middle Tennessee Heart Association; **Dr. Andrew Dale** is vice-president for the current year, 1963-64; and **Dr. John H. Beveridge** was re-elected secretary-treasurer for 1963-64. **Dr. Thomas F. Frist** was also re-elected chairman of the Board of Directors. All are of Nashville.

The Blount Memorial Hospital at Maryville has elected the following staff officers: Chief of Staff, **Dr. Lynn Curtis**; Vice Chief of Staff, **Dr. Julian Lentz**; Secretary, **Dr. C. B. Howard**; Chief of Medicine, **Dr. W. C. Crowder**; Vice Chief of Medicine, **Dr. Frank Lovingood**; Chief of Surgery, **Dr. Henry Callaway**; Vice Chief of Surgery, **Dr. C. B. Lequire.**

Guest speaker for the installation banquet of the Cleveland Sertoma Club was **Dr. McCarthy DeMere**, Memphis.

Dr. Richard Jackson, Dickson, has recently accepted the responsibility of the chairmanship of the Dickson County Red Cross Blood Program.

Drs. Herschel A. Graves, Jr., and **Harold C. Dennison, Jr.**, Nashville, announce their association in the practice of general, thoracic and vascular surgery.

Dr. Spencer P. Thornton, Nashville, announced the opening of his office for the practice of ophthalmology.

ANNOUNCEMENTS

Calendar of Meetings, 1963

State

Sept. 30-Oct. 1—Tennessee Valley Medical Assembly, Read House, Chattanooga

Oct. 10-11 —International Symposium on Lipid Transport, Vanderbilt University School of Medicine, Nashville

Oct. 17-19 —Clinical Orthopaedic Society, Nashville

Oct. 24-25 —Tennessee Academy of General Practice, Nashville

Nov. 8-9 —Southern Society for Pediatric Research, St. Jude Hospital, Memphis

Nov. 21 —Middle Tennessee Medical Association Fall Meeting, Camp Campbell Kentucky

Regional

Sept. 5-7 —American Association of Obstetricians and Gynecologists, The Homestead, Hot Springs, Va.

Sept. 20-21 —National Rural Health Conference, Arlington Hotel, Hot Springs, Ark.

Nov. 18-21 —Southern Medical Association, Municipal Auditorium, New Orleans, La.

National

Aug. 25-30 —American Congress of Physical Medicine and Rehabilitation, Sheraton-Dallas Hotel, Dallas, Texas

Sept. 5-9 —College of American Pathologists, Palmer House, Chicago, Illinois

Oct. 5-10 —American Academy of Pediatrics, Palmer House, Chicago, Illinois

Oct. 8-12 —Congress of Neurological Surgeons, Denver Hilton Hotel, Denver, Colorado

Oct. 20-23 —American College of Gastroenterology, Shoreham Hotel, Washington, D.C.

Oct. 20-25 —American Academy of Ophthalmology & Otolaryngology, Hilton Hotel, New York City

Oct. 28-Nov. 1—American College of Surgeons, Brooks Hall, San Francisco, Cal.

Nov. 7-9 —American College of Obstetricians and Gynecologists (District 4) Shoreham Hotel, Washington, D.C.

Nov. 11-15 —American College of Preventive Medicine, Kansas City, Kansas

New Orleans Graduate Medical Assembly

The 27th annual meeting of the New Orleans Graduate Medical Assembly will be held March 2-5, 1964 at the Roosevelt Hotel, New Orleans.

Heart Symposium

The Forsyth County Heart Association will hold a one-day scientific meeting on September 20th at Hotel Robert E. Lee, Winston-Salem, North Carolina. Inquires regarding the symposium should be directed to Dr. Henry Miller, Bowman Gray School of Medicine, or Mrs. Virginia Wilson, Executive Director, Forsyth County Heart Association, 2041 Queen Street, Winston-Salem, North Carolina.

Seminar on Mental Retardation

A two-day seminar on Mental Retardation will be held on October 14-15, at Clover Bottom Hospital and School, Nashville. There will be no registration fee, however, registrants will be limited to 100. Advanced registration is requested. Speakers will include: Dr. Robert E. Cooke, Professor of Pediatrics, Johns Hopkins University, Baltimore; Dr. Alex Steigman, Director of Pediatric Research, Education and Training, American Academy of Pediatrics, Evanston, Illinois; Dr. Harry Waisman, Professor of Pediatrics, University of Wisconsin, Madison; Dr. Amos Christie, Professor of Pediatrics, Vanderbilt University Medical School; Dr. Harris DeWitt Riley, Jr., Professor of Pediatrics, University of Oklahoma Medical Center, Oklahoma City; Dr. William Reilly, Clinical Director, Clover Bottom Hospital and School, Donelson.

Inquiries should be referred to Dr. Joseph C. Denniston, Director of the Division of Mental Retardation, State Department of Mental Health, 300 Cordell Hull Building, Nashville.

The Medical College of Georgia

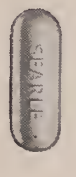
The Medical College of Georgia, Department of Continuing Education has planned a series of five postgraduate courses for the fall and winter of 1963-64. The subjects to be presented are: "Psychosomatic Medicine Conferences"; Fractures in General Practice"; "Thirteen Cardiacs"; "Hypertension and Its Complications"; and "Obstetric Problems in Private Practice."

Most courses are accredited by the American Academy of General Practice. Application may be made by contacting Dr. Claude-Starr Wright, Director, Department of Continuing Education, Medical College of Georgia, Augusta, Georgia.

Fifth National Cancer Conference

The Fifth National Cancer Conference, sponsored by the American Cancer Society and the National Cancer Institute, will be conducted September 17-19, 1964 at the Bellevue-Stratford Hotel, Philadelphia, Pennsylvania. For information write: American Cancer Society, Inc., 521 West 57th Street, New York City 19, N.Y.

Sustained high-level protection in peptic ulcer



all day



all night



with b.i.d. dosage

PRO-BANTHĪNE P.A.®

Brand of PROPANTHELINE Bromide

Prolonged-Acting Tablets—30 mg.

Pro-Banthīne P.A. provides the full anticholinergic benefit of Pro-Banthīne® plus the greater convenience and more consistent therapeutic effect of a long-acting dosage form.

Asher[1] has summarized the advantages of prolonged-action dosage forms: "First, they should be of great value in the suppression of night acid secretion in the ulcer patient. Also, in the ulcer patient, with high acid secretion during the day these drugs should be of help when used with regular doses of shorter-acting anticholinergic agents. A third application is in the chronic treatment of certain patients whose tendency to recurrent ulcer has been established."

Pro-Banthīne P.A. offers consistent, sustained anticholinergic effects for more consistent suppression of acid secretion and motility on simple twice or thrice daily dosage in most patients.

G.D. SEARLE & CO.
CHICAGO 80, ILLINOIS
Research in the Service of Medicine

Suggested Adult Dosage:
One tablet at bedtime and one in the morning, supplemented, if necessary, by additional tablets of Pro-Banthīne P.A. or standard Pro-Banthīne to meet individual requirements.

Pro-Banthīne P.A.
is supplied as capsule-shaped, peach-colored tablets of 30 mg. each.

Contraindications:
Glaucoma; severe cardiac disease.

Possible Side Actions:
Xerostomia, mydriasis and, occasionally, hesitancy in urination. Theoretically, a curare-like action may occur.

1. Asher, L. M.: The Choice of Anticholinergic Drugs in the Treatment of Functional Digestive Diseases, Amer. J. Dig. Dis. 4:260-275 (April) 1959.

PHYSICIANS MUTUAL INSURANCE COMPANY

(FORMERLY PHYSICIANS CASUALTY ASSOCIATION AND PHYSICIANS HEALTH ASSOCIATION)

115 SOUTH 42ND STREET OMAHA 31, NEBRASKA

Something "New"

For

Doctors

Protect Your Most Valuable Asset

"Your Time"

Our New Sickness and Accident Protection Policy
Pays the Amount You Select up to $500.00 per Month
For Loss of Time Caused by Accident or Sickness

Insuring Physicians & Dentists for 60 years.

PHYSICIANS MUTUAL INSURANCE COMPANY

COUPON

Physicians Mutual Insurance Co.
115 So. 42nd St. Omaha 31, Nebraska
"Offering Protection to Physicians and Dentists
Since 1902"

Name_____ Age_____

Address_____ City_____



Notable increase in vigor, strength and sense of well-being

NSTROL (stanozolol-Winthrop), a heterocyclic steroid, combines ent anabolic effects with outstanding tolerance, stimulates appe- and promotes weight gain... restores a positive metabolic balance. ounteracts the catabolic effects of concomitant corticosteroid or TH therapy. WINSTROL (stanozolol-Winthrop) rebuilds body tissue le it builds strength, confidence and a sense of well-being in con- ons associated with excess protein breakdown, insufficient protein ake and inadequate nitrogen and mineral retention.

e Effects and Precautions: Prolonged administration can produce d hirsutism, acne or voice change. In an occasional patient, edema ; been observed and in young women the menstrual periods have en milder and shorter. These side effects are reversible, and pa- nts receiving prolonged treatment should be examined and ques- tioned periodically so that, should side effects appear, the dosag may be reduced or administration of the drug discontinued for a time In patients with impaired cardiac and renal function, there is the pos sibility of sodium and water retention. Liver function tests may revea an increase in bromsulphalein retention, particularly in elderly pa tients. In such cases, therapy should be discontinued. Although it has been used in patients with cancer of the prostate, its mild androgeni activity is considered by some investigators to be a contraindication

Dosage: Usual adult dose, 1 tablet t.i.d. before or with meals; young women, 1 tablet b.i.d.; children (school age): up to 1 tablet t.i.d.; chil dren (pre-school age): ½ tablet b.i.d. Available as scored tablets o 2 mg. in bottles of 100. For best results, administer with a high protein diet.

WINTHROP LABORATORIES, NEW YORK 18, N.Y.

arked improvement in appetite / Measurable weight gain Winthrop



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James K. Ward, M.D.
Phones WOrth 1-1151

WILLIAM B. TERHUNE, M.D.

The Silver Hill Foundation

New Canaan Connecticut

Announces:

Appointment available for Senior Associate. Board Certified in Psychiatry to join our Group in the active practice of psychiatry. The Silver Hill Foundation is a psychotherapeutic unit for the treatment of the functional nervous disorders. The setting is that of a comfortable country home where a limited number of patients are under intensive, re-educational treatment for a period of several weeks.

Ideal work conditions, scientific freedom and guaranteed income. Only well qualified physician, capable of advancement should APPLY TO: Dr. William B. Terhune, Medical Director, New Canaan, Connecticut.

Associates: Dr. Marvin G. Pearce
Dr. Robert B. Hiden
Dr. William M. White
Dr. William D. Wheat
Dr. Warren A. Mann
Dr. Morgan F. Moore

SAINT ALBANS

PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

Telephone: 639-2482

STAFF

James P. King, M.D., Director

William D. Keck, M.D.
Clinical Director
James K. Morrow, M.D.
Silas R. Beatty M.D.
Jack M. Rogers, M.D.

Edward W. Gamble, III, M.D.
Morgan E. Scott, M.D.
Jean M. Glasgow, M.D.
J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.
Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: 325-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Malcolm G. MacAulay, M.D.
Phone: 253-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
Richard D. Kitching, M.D.
Phone: 344-3578

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 1090

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

Today's Health

A GOOD BUY IN PUBLIC RELATIONS

Place it in your reception room

Today's Health is published for the American Family by the American Medical Association, 535 N Dearborn St.—Chicago 10, Illinois

Give your subscription order to a member of your local Medical Society Woman's Auxiliary, who can give you Special Reduced Rates.

BRAWNER HOSPITAL, INC.

(Established 1910)

2932 South Atlanta Road, Smyrna, Georgia

FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION

MODERN FACILITIES

Jas. N. Brawner, Jr., M.D.
Medical Director

Aloysius I. Miller, M.D.
Mark A. Gould, M.D.

Phone HEmlock 5-4486

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply & Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy.. brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE MARK®



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can 75c
Pt. bottle with dispensing can $2.50
Qt. bottle with dispensing can $4.00

Plus post.

White Surgical Supply Co.

SURGICAL SUPPLIES & ACCESSORIES

515 West Church Ave. Knoxville 7, Tennessee

Telephone 3-1186

PATRONIZE

OUR

ADVERTISERS

ACCEPTED AMERICAN MEDICAL ASSN

HOMOGENIZED VITAMIN D MILK PRODUCES SOFT CURD

(400 U.S.P. Units Vitamin D Per Quart)

"A" Grade Sealtest MILK Phone AL 5-6451

Fortified Fat Free Milk

(2000 Units Vitamin A—400 Units Vitamin D)

NASHVILLE PURE MILK CO.



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS and SYMPTOMS**: Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS**: Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT**: Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN
1104 Sudekum Bldg.
Nashville, Tenn.

SETH W. SIZER
1211 James Bldg.
Chattanooga, Tenn.

THERON M. LEMLY
1309 Poplar Ave.
Memphis, Tenn.

Now Available

TO MEMBERS OF THE TENNESSEE MEDICAL ASSOCIATION

Who can qualify for this insurance

$500.00 Per month DISABILITY INCOME PLAN—NON CANCELLABLE

Pays LIFETIME for accident—10 YEARS CERTAIN FOR ILLNESS

DOUBLE BENEFITS FOR ANY THREE MONTH PERIOD OF HOSPITALIZATION

GENERAL PROVISIONS:

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.

Complete aviation coverage on both Monthly Benefit and Principal Sum both private and commercial flying

Monthly benefits payable from the first day of disability

May also be issued with elimination periods if desired

Individually NON CANCELLABLE except for—

1. Non Payment of Premium within the grace period
2. Retired from practice

Guaranteed renewable to age 70. Renewable thereafter at the option of the Company

For further information please contact

Sovereign States Insurance Company

1808 West End Avenue

Post Office Box 767

Nashville, Tennessee

Carl Yeakey, Director of Professional Services

PLACEMENT SERVICE

The Placement Service of the Tennessee Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee, CY 1-4584.

Locations Wanted

General surgeon, 30 years of age, graduate of the Medical College of Georgia, with five years residency, is interested in locating in Tennessee city 20,000 or over with no preference as to location. Associate or group practice. Protestant; married; available on notice. LW-440

◆

A 38 year old general practitioner, with residency training in surgery, would like clinical, assistant, associate, industrial or institutional practice in any area of Tennessee. Graduate of the University of Virginia. Married; Protestant. Available on notice. LW-446

◆

A Board eligible general surgeon, with four years residency, graduate of Wisconsin University, would like clinical, assistant, associate or industrial practice in East Tennessee city of 20,000 plus. Age 32; married. Available now. LW-454

◆

A 29 year old OB-Gyn, graduate of the University of Tennessee, completing third year of residency, would like clinical or associate practice in Tennessee City of 25,000 plus. Prefers West Tennessee, but will consider other sections. Married; available summer 1963. LW-460

◆

A general practitioner, with interest in internal medicine, would like clinical or associate practice in East Tennessee city of 30,000 or less. Now in government work, but wishes private practice. Age 29; married; Graduate of the Medical College of Georgia. Available summer of 1963. LW-474

◆

A 28 year old general practitioner, now interning, is interested in clinical practice in East Tennessee. Will consider institutional or industrial. Married. Graduate of the University of Tennessee College of Medicine. Available September 1963. LW-476

◆

A 37 year old Otolaryngologist, with three years residency training, presently in the U.S. Navy, would like associate practice in any section of Tennessee of over 50,000 population. Graduate of University of Tennessee College of Medicine. Married. Tennessee license. Available after August 15, 1963. LW-485

◆

A 30 year old Urologist, just completing four years residency, would like clinical or associate practice in Middle Tennessee area of 2,000 to 65,000 population. Graduate Tulane University School of Medicine. Married. Available July 1964. LW-486

◆

A 30 year old physician, now in residency, would like to establish associate or solo practice in Orthopedics in any Middle or East Tennessee area of 15,000 to 150,000 population. Graduate of Tulane School of Medicine. Married. Available January 1964. LW-492

A general practitioner, 42 years of age, would like assistant, clinical, industrial, or insurance practice in any size community, any area of Tennessee. Now in private practice, but wishes to locate in state offering better educational opportunities. Graduate of Oklahoma School of Medicine. Married. Available 30 days after acceptance. LW-493

Physicians Wanted

Physician in East Tennessee community of 6,000 wishes an associate for general practice. Age 25-35, with one year internship. New, private office; examining rooms and equipment available. Hospital located in community. PW-134

◆

Small town in northern part of state in great need of a physician. Sears-Roebuck Foundation approved area. No other physician in county. Support of physician assured by business and civic leaders. PW-177

◆

One or two physicians needed in East Tennessee community of 15,000 population. Housing, office space and equipment available. Good opportunity. Excellent schools and recreational facilities. Hospital within 15 minute drive. PW-178

◆

Town located in Kentucky, just across the line from Tennessee, needs replacement for general practitioner leaving for residency training. Housing available; 7 room office, completely equipped and furnished, available. Hospital 12 miles. PW-180

◆

Physician in East Tennessee city of 200,000 needs a general practitioner for assistant practice in private hospital. One year internship. Office space and office equipment provided. PW-181

◆

Excellent opportunity for an obstetrician or general practitioner in East Tennessee city of 25,000. Office next to hospital for lease. Will introduce. Owner will move to Florida when occupant obtained. Deferred lease payments possible. PW-183

◆

FOR SALE: Practice, office, and office equipment in Middle Tennessee town of 6,000. Excellent opportunity for young physician. PW-184

◆

Small upper East Tennessee community in need of a physician to replace general practitioner who has retired. Approved for Sears-Roebuck Foundation assistance, and a survey report available upon request. Housing and office space available. Near industrial area. PW-185

◆

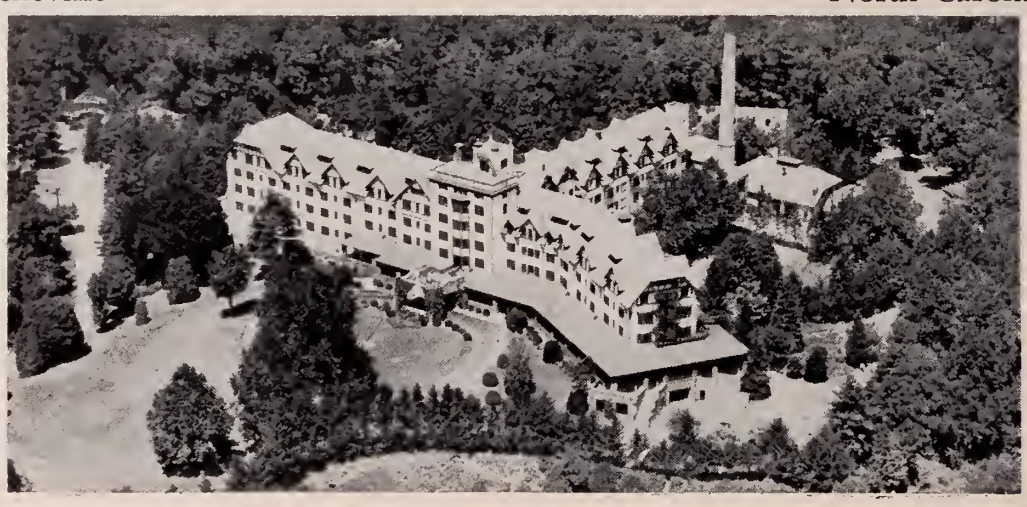
Two-man partnership, in Middle Tennessee town of 7,000, would like Internist or General Practitioner with training and interest in internal medicine, as an associate. Opportunity for right man, as no other internist is in this area. Space in modern building and fairly complete diagnostic facilities are available. Hospital next door. PW-194

◆

A fully equipped clinic FOR RENT or LEASE to general practitioner in East Tennessee town of 4,500 to replace physician leaving. Excellent opportunity. PW-197

APPALACHIAN HALL
Established 1916

Asheville North Carolina



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

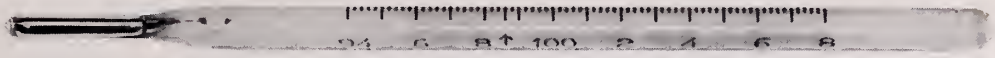
WM. RAY GRIFFIN, JR., M.D.
ROBERT A. GRIFFIN, M.D.
MARK A. GRIFFIN, SR., M.D.
MARK A. GRIFFIN, JR., M.D.

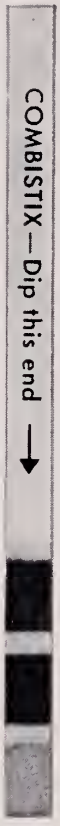
For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

Ames Co., Inc.	XLV	Parke-Davis and Company	II, III
Appalachian Hall	XLIV	Physicians Mutual Ins. Co.	XXVI, XXXIV
Blood Bank Foundation	XXVIII	Physicians Products Co., Inc.	XV
Brawner Hospital, Inc.	XXXVIII	Robins, A. H. Co., Inc.	XIX, XX, XXI, XXVII
Brayten Pharmaceutical Company	XXIII	Roche Laboratories	XLVI
Burroughs Wellcome & Co.	VI	Rorer, William H.	VII
Chatham Pharmaceuticals, Inc.	XVIII	St. Albans	XXXVII
City View Sanitarium	XXVI	Saunders, W. B., Co.	XI
Coca-Cola	XL	Searle, G. D. & Co.	XXXIII
Endo Laboratories	XIII	Smith, Kline & French Laboratories	XVI
Farringer & Company	XXX	Smith, Reed, Thompson & Ellis Co.	XXII
Guild Opticians	XXXVIII	Sovereign States Ins. Co.	XLII
Hill Crest Sanitarium	XXXVI	Tafel Surgical Supply Co., Inc.	XXVI
Kay Surgical, Inc.	XVIII	Tennessee Valley Medical Assn.	X
Lederle Laboratories	XXIX	Terhune, William B., M.D.	XXXVI
Lilly, Eli and Co.	I, XXXII	Today's Health	XXXVIII
Mayrand, Inc., Pharmaceuticals	XII	Wallace Laboratories	VIII, IX, XIV, XVII, XXIV, XXV, XXVIII
Mutual Benefit Life Ins. Co.	XLI		
Nashville Pure Milk Co.	XL	White Surgical Supply Co.	XL
Nashville Surgical Supply Co., Inc.	XXXIX	Winthrop Laboratories	V, XXXI, XXXV

one answer... three minutes





three answers ...ten seconds

DIP AND READ

combistix®

urine protein • glucose • pH

BASIC COMBINATION TEST FOR BEDSIDE AND OFFICE

... faster than taking temperature. Detects glucosuria (as in diabetes), proteinuria (as in renal disorder), abnormal pH (as in calcinosis or GU infection). For routine screening of all patients.
COMBISTIX—*basic as the stethoscope.*
AMES products are available through your regular supplier. 38263

AMES COMPANY INC Elkhart • Indiana Toronto • Canada

Formerly nervous and tense,
now better able to...

make decisions



This, in essence, is what happens when you place a patient on Librium (chlordiazepoxide HCl). Since this agent generally relieves anxiety and tension without dulling mental clarity or inducing drowsiness, most patients become better able to function normally, take an active interest in family and surroundings, meet and solve daily problems. This antianxiety agent is virtually free from extrapyramidal side effects, and does not produce or deepen depression.

Anxiety and tension relieved
Alertness maintained

Librium®

(chlordiazepoxide HCl) ROCHE®

the successor to the tranquilizers

ROCHE

Dosage: Usual adult dose in mild to moderate anxiety and tension is 5 or 10 mg, 3 or 4 times daily; in severe anxiety and tension, 20 or 25 mg, 3 or 4 times daily. Side effects: Drowsiness and ataxia, usually dose-related, have been reported in some patients—particularly the elderly and debilitated. Paradoxical reactions, *i.e.*, excitement, stimulation, elevation of affect and acute rage, have been reported in psychiatric patients; these reactions may be secondary to relief of anxiety and should be watched for in the early stages of therapy. Other side effects, usually dose-related, have included isolated instances of minor skin rashes, minor menstrual irregularities, nausea, constipation, increased and decreased libido. Precautions: In elderly, debilitated patients, limit dosage to smallest effective amount to preclude development of ataxia or oversedation (not more than 10 mg per day initially, to be increased gradually as needed and tolerated). Until the correct maintenance dosage is established, patients receiving this agent should be advised against possibly hazardous procedures requiring complete mental alertness or physical coordination. Caution patients about possible combined effects with alcohol. Caution should be exercised in administering Librium (chlordiazepoxide HCl) to addiction-prone individuals. Careful consideration should be given to the pharmacology of any agents to be employed concomitantly—particularly the MAO inhibitors and phenothiazines. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests may be advisable in protracted treatment. Caution should be exercised in prescribing any therapeutic agent to pregnant patients.

THE JOURNAL OF THE

TENNESSEE MEDICAL ASSOCIATION

TENNESSEE VALLEY MEDICAL ASSEMBLY
Read House, Chattanooga, Tennessee
September 30 and October 1, 1963

TENNESSEE ACADEMY OF GENERAL PRACTICE
15th Annual Scientific Assembly
Nashville Municipal Auditorium
October 24-25, 1963

MID-SOUTH MEDICAL ASSEMBLY
Peabody Hotel, Memphis
February 11-14, 1964

SEPTEMBER, 1963

Volume 56 Number 9

ble of Contents on Page IV
lex to Advertisers on Page XLVIII

LIBRARY

The Lente Insulins

- wide range of Insulin activity
- free of modifying protein

Additional information available upon request.
Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

300026



whatever the shape or form of allergy...

Benadryl®
(Diphenhydramine hydrochloride)

effectively relieves the symptoms of vasomotor rhinitis For patients sensitive to animal danders, this agent provides twofold therapeutic action to help abort an allergic attack. **Antihistaminic action:** A potent antihistaminic, it breaks the cycle of allergic response, bringing relief of sneez-



ing, lacrimation, nasal blockage, and rhinorrhea. **Antispasmodic action:** Because of its inherent atropine-like properties, the drug affords concurrent relief of bronchial spasm. ***Indications:*** Allergic diseases such as hay fever, allergic rhinitis, urticaria, angioedema, bronchial asthma, serum sickness, atopic dermatitis, contact dermatitis, gastrointestinal allergy, vasomotor rhinitis, pruritus, physical allergies, reactions to injection of contrast media, reactions to therapeutic preparations, and allergic transfusion reactions; also postoperative nausea and vomiting, nausea of pregnancy, motion sickness, parkinsonism and drug-induced extrapyramidal reactions, and quieting emotionally disturbed children. Parenteral administration is indicated where, in the judgment of the physician, prompt action is necessary and oral therapy would be inadequate. ***Precautions:*** Avoid subcutaneous or perivascular injection. Single parenteral dosage greater than 100 mg. should be avoided, particularly in hypertension and cardiac disease. Persons who have become drowsy on this or other antihistamine-containing drugs, or whose tolerance is not known, should not drive vehicles or engage in other activities requiring keen response while using this product. Hypnotics, sedatives, or tranquilizers, if used with this product, should be prescribed with caution because of possible additive effect. Diphenhydramine hydrochloride has an atropine-like action which should be considered when prescribing it. Cream (Ointment) should not be applied to extensively denuded or weeping skin areas. ***Supplied:*** Kapseals® of 50 mg.; Capsules of 25 mg.; Emplets® (enteric-coated tablets) of 50 mg.; in aqueous solutions: 1-cc. Ampoules, 50 mg. per cc.; 10- and 30-cc. Steri-Vials,® 10 mg. per cc. with 1:10,000 benzethonium chloride as a germicidal agent; Elixir, 10 mg. per 4 cc. with 14 per cent alcohol; 2 per cent Ointment (water-miscible base).

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

14563

The Journal of the TENNESSEE MEDICAL ASSOCIATION

Published Monthly

By Tennessee Medical Association

OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE

Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 9

SEPTEMBER, 1963

Per Year, $5.00
Single Copy, 50 Cents

Published Monthly

Contents

Colon Lesions Simulating Acute Appendicitis, W. ANDREW DALE, M.D., Nashville, Tenn. 351

Immunization Status of First-Grade Pupils: Results of a Survey in Memphis, EUGENE FOWINKLE, M.D., M.P.H. and NOBEL GUTHRIE, M.D., Dr. P.H., Memphis, Tenn. 357

Oral Leukoplakia: A Study of 420 Tissue Sections, JAMES F. SMITH, D.D.S., Ph.D., Memphis, Tenn. 360

Clinical Notes from the Tennessee Heart Association
Treatment of Right Ventricular Failure (Cor Pulmonale), CRAWFORD W. ADAMS, M.D., Nashville, Tenn. 367

Staff Conference 369

Clinicopathologic Conference 374

President's Letter 379

Editorial 380

Deaths 381

Programs and News of Medical Societies 382

National News 382

Medical News in Tennessee 384

Personal News 385

Announcements 386

Placement Service 390

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 12, Tennessee.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE

R. H. KAMPMEIER, M.D., Editor

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein

Copyright, 1963, by the Tennessee Medical Journal



NTz Nasal Spray gives prompt, dependable decongestion of the nasal membranes for fast symptomatic relief of hay fever. The first spray shrinks the turbinates, restores nasal ventilation and stops mouth breathing. The second spray, a few minutes later, improves sinus ventilation and drainage. Excessive rhinorrhea is reduced.

NTz Nasal Spray also provides decongestive relief for head colds, perennial rhinitis and sinusitis. Supplied in leakproof, pocket-size, squeeze bottles of 20 ml. and in bottles of 30 ml. with dropper.

NTz® Nasal Spray

NTz is more than a simple vasoconstrictor. It contains [N]eo-Synephrine® HCl 0.5%—the efficacy of which is unexcelled—to shrink nasal membranes and provide inner space; [T]henfadil® HCl 0.1% for topical antiallergic action; and [Z]ephiran® Cl 1:5000 (antibacterial wetting agent) to promote the spread of the decongestant components to less accessible nasal areas.

NTz is well tolerated and does not harm respiratory tissues.

NTz, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran (brand of benzalkonium as chloride, refined), trademarks reg. U. S. Pat. Off. 1796M

Winthrop Winthrop Laboratories
New York 18, N.Y.



Both the Cream and Ointment rarely sensitize and are bactericidal to virtually all gram-positive and gram-negative organisms found topically, including Pseudomonas aeruginosa and Staphylococcus aureus.

Indications: Wherever infection occurs and is accessible for topical therapy.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

'NEOSPORIN'® brand
POLYMYXIN B / NEOMYCIN / GRAMICIDIN
ANTIBIOTIC CREAM

Ingredients: Each gram contains: 'Aerosporin'® brand Polymyxin B* Sulfate 10,000 Units; Neomycin Sulfate 5 mg. (equivalent to 3.5 mg. Neomycin Base); Gramicidin 0.25 mg.

In a smooth, white, water-washable vanishing cream base with a pH of approximately 5.0. Inactive ingredients: liquid petrolatum, white petrolatum, distilled water, propylene glycol, polyoxyethylene polyoxypropylene compound, emulsifying wax and 0.25% methylparaben as preservative.

*U.S. Patent Nos. 2,565,057-2,695,261

Available: In 15 Gm. tubes.

'NEOSPORIN'® brand
POLYMYXIN B / BACITRACIN / NEOMYCIN
ANTIBIOTIC OINTMENT

Ingredients: Each gram contains: 'Aerosporin'® brand Polymyxin B Sulfate 5,000 Units; Zinc Bacitracin 400 Units; Neomycin Sulfate 5 mg. (equivalent to 3.5 mg. Neomycin Base).

Available: Tubes of 1 oz., ½ oz. and ⅛ oz.

Complete literature available on request from Professional Services Dept. PML.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

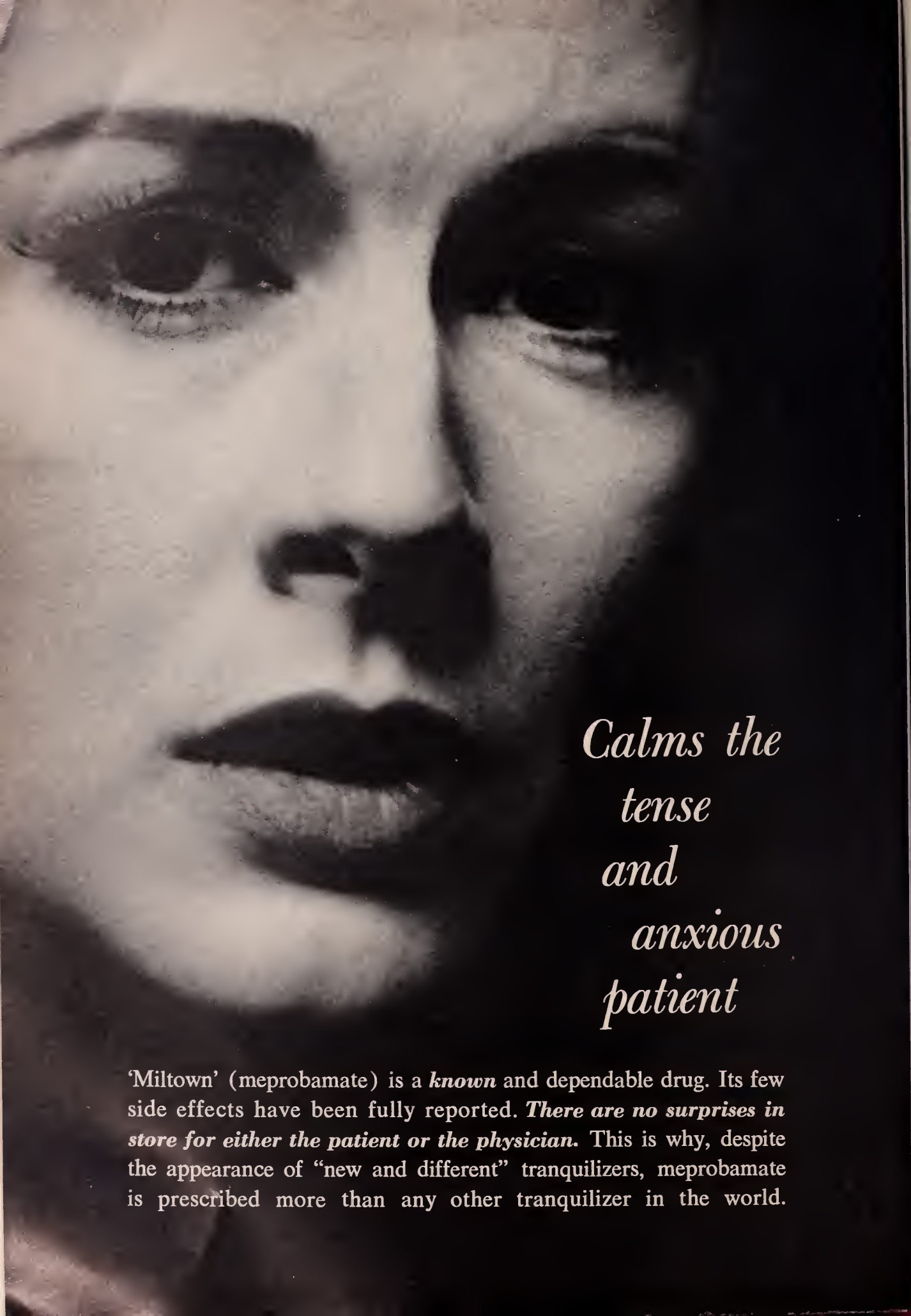
blood, milk and Maalox®

(magnesium-aluminum hydroxide gel)

Practically standard treatment, now, for perforated ulcer. Why is Maalox included? Antacid therapy *must* continue long after the wound has healed, and patients started on Maalox tend to stay on Maalox. It tastes good; it's effective and will not cause constipation—three important reasons for Maalox over the long haul. Some physicians, we are told, order Maalox routinely for hospital patients on drugs which could irritate. They feel it reduces the likelihood of gastric discomfort. Supplied: Suspension; Tablets No. 1; Tablets No. 2. (Each Maalox No. 1 Tablet is equivalent to 1 teaspoonful and each Maalox No. 2 Tablet is equivalent to 2 teaspoonfuls of Suspension.)



ROHRER WILLIAM H. RORER, INC., FORT WASHINGTON, PA.



Calms the tense and anxious patient

'Miltown' (meprobamate) is a ***known*** and dependable drug. Its few side effects have been fully reported. ***There are no surprises in store for either the patient or the physician.*** This is why, despite the appearance of "new and different" tranquilizers, meprobamate is prescribed more than any other tranquilizer in the world.

Clinically Proven

in more than 750 published clinical studies
and over eight years of clinical use

Outstanding Record of Effectiveness and Safety

1. Relieves anxiety and anxious depression in a broad spectrum of clinical conditions.
2. Doesn't leave patients "too groggy" to work or think or learn.
3. Relaxes both mind and skeletal muscle. Relieves physical tension as well as emotional stress.

Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Massive overdosage may produce coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.
Usual dosage: 1 or 2 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50.

the original meprobamate

Miltown®

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-9235







all things considered...the decision is for

in otitis media, having weighed the classical considerations basic to management, physicians often choose DECLOMYCIN demethylchlortetracycline for broad-spectrum antibiotic therapy. DECLOMYCIN demethylchlortetracycline produces activity levels higher than do other tetracyclines... at lower dosage...and maintains them without significant fluctuation.

Activity is prolonged 24 to 48 hours after the last









DECLOMYCIN®

DEMETHYLCHLORTETRACYCLINE *syrup*

dose, thus helps protect against relapse—an "extra dimension" in broad-spectrum control.

Effective in a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill—when the offending organisms are tetracycline-sensitive. *Side Effects* typical of tetracyclines which may occur: glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis, dermatitis, overgrowth of nonsusceptible organisms. Also: photodynamic reaction (making avoidance of direct sunlight advisable) and, very rarely, anaphylactoid reaction.

Syrup, 75 mg. demethylchlortetracycline/5 cc. and *Pediatric Drops*, 60 mg./cc.

Average Daily Dosage—Infants and Children: 3 to 6 mg. per lb. body weight, in 2 or 4 doses.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

6568-3

Lederle

CORONARY VASODILATOR

. . . IN TIMED, SUSTAINED RELEASE FORM FOR PROTECTION DURING THE CRITICAL HOURS . . . .

3 COMBINATIONS FOR DESIRED EFFECT!

ANTORA-H

Phenobarbital (Warning: May be habit forming).	3/4 gr.
Hyoscyamine Sulfate	0.3858 mg.
Atropine Sulfate	0.0750 mg.
Hyoscine Hydrobromide	0.0222 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA-B

Secobarbituric Acid (Warning: May be habit forming).	50 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA

Pentaerythritol Tetranitrate	30 mg.

The ANTORA family offers wide latitude in treating the angina patient with or without anxiety syndromes or with spastic and hypertonis symptoms. The versatility of PETN justifies its use in several combinations to benefit cardiovascular patients. No incompatibility with nitroglycerine is evident.

AVAILABLE: Bottles of 60 and 250 capsules.

BRIEF SUMMARY:

Side Effects: Transient headaches and nausea occasionally, not usually severe enough to discontinue medication. In a few sensitive patients, depression, arthralgias, xerostomia and myalgia may be observed. Contraindications: glaucoma, intraocular pressure, barbiturate hypersensitivity.

SAMPLES AND LITERATURE ON REQUEST

Mayrand, INC. PHARMACEUTICALS

GREENSBORO, NORTH CAROLINA

TENNESSEE VALLEY MEDICAL ASSEMBLY

(Sponsored by the Chattanooga and Hamilton County Medical Society)

READ HOUSE, CHATTANOOGA, TENNESSEE

Monday, September 30, and Tuesday, October 1, 1963

11TH ANNUAL ASSEMBLY

MONDAY, SEPTEMBER 30, 1963

A.M.

7:30 REGISTRATION BEGINS

9:00 NEAL OWENS, M.D., Plastic Surgeon, New Orleans, La., *"Plastic Surgery of Interest to the General Practitioner"*

9:30 CARL V. MOORE, M.D., Busch Prof. of Medicine and Head of Dept., Washington University, St. Louis, Mo., *"Iron Deficiency Anemias"*

10:00-10:30 A.M. — INTERMISSION

10:30 J. HARTWELL HARRISON, M.D., Clin. Prof., Genito-Urinary Surgery, Harvard Medical School, Boston, Mass., *"The Management of Cancer of the Prostate"*

11:00 MARION B. SULZBERGER, M.D., Tech. Dir. Research. Office of Surgeon General, Washington, D.C., *"Opportunities and Obligations of A Military Medical Research Program"*

11:30 B. MARDEN BLACK, M.D., Prof. of Surgery, Mayo Foundation, Rochester, Minn., *"Hyperparathryoidism"*

NOON

P.M.

2:00 JOSEPH STOKES, JR., M.D., Prof. Pediatrics and Physician-in-Chief, Children's Hospital, Philadelphia, Pa., *"Recent Work on Measles Immunization"*

2:30 ISADORE DYER, M.D., Prof. Obstetrics, Tulane University, New Orleans, La., *"Severe Trauma In Pregnancy and Delivery"*

3:00-3:30 P.M. — INTERMISSION

3:30 J. VERNON LUCK, M.D., Prof. Clin. Orthopaedic Surgery, University of Southern California, *"Hip Joint Problems From Birth to Old Age"*

4:00 E. GREY DIMOND, M.D., Dir., Institute of Cardiopulmonary Diseases, Scripps Clinic and Research Foundation, La Jolla, Calif., *"Can the Presence of Angina Pectoris Be Proved"*

4:30 *Questions and Answer Period*

REGISTRATION FEE $15.00

BANQUET TICKET $7.50

TUESDAY, OCTOBER 1, 1963

A.M.

9:00 KENNETH W. WARREN, M.D., Surgical Staff, Lahey Clinic, Boston, Mass., *"Surgical Aspects of Obstruction of the Common Bile Duct"*

9:30 JOHN H. MULHOLLAND, M.D., Prof. Surgery, New York University College of Medicine, New York, N. Y., *"Studies in Biliary-Pancreatic Disease"*

10:00-10:30 A.M. — INTERMISSION

10:30 RALPH A. REIS, M.D., Prof. Obstetrics and Gynecology, Northwestern University, Chicago, Ill., *"Endometriosis"*

11:00 HARRY SHWACHMAN, M.D., Assoc. Clin. Prof., Pediatrics, Harvard Medical School, Boston, Mass., *"Cystic Fibrosis: Clinical Variants and Methods of Diagnosis"*

12:00 EDGAR A. HINES, JR., M.D., Emeritus Prof. Med., University of Minnesota, and Consultant, Internal Medicine, V. A. Hospital, Oteen, N. C., *"The Evaluation of the Patient Suspected of Having Peripheral Vascular Disease"*

NOON

P.M.

2:00 LEON SCHIFF, M.D., Prof. of Medicine. University of Cincinnati College of Medicine, Cincinnati, Ohio, *"Newer Developments in the Study of Jaundice"*

2:30 HERBERT D. ADAMS, M.D., Surgical Staff, Lahey Clinic, Boston, Mass., *"Intrathoracic Goiter: Diagnosis and Treatment"*

3:00-3:30 — INTERMISSION

3:30 HARRY E. BACON, M.D., Prof and Head of Dept., Proctologic Surgery, Temple University, Philadelphia, Pa., *"The Diagnosis and Surgical Treatment of Diverticulitis of the Colon"*

4:00 Symposium on *"Gastro-Intestinal Hemorrhage"* moderated by Dr. John H. Mulholland, with Dr. Kenneth W. Warren, and Dr. Harry E. Bacon as panelists.

Banquet on Monday night, September 30, 1963, in the ballroom of the Read House at 7:30 p.m. Banquet Speaker—Isadore Dyer, M.D., New Orleans, La. (Doctors and wives are invited to this banquet.)
Subject—*"Conceiving Can Be Fun"*

Get your low-back patient back to work in days instead of weeks

You can expect rapid results from 'Soma' (carisoprodol)—because this unique drug breaks up both the spasm and pain of low-back syndrome at the same time.

Your patients will usually begin to feel better within a few hours. And as Kestler demonstrated in a controlled study of 212 consecutive patients with low-back problems: the average time for full recovery was only 11.5 days with 'Soma' (carisoprodol), 41 days without it. (J.A.M.A., April, 1960.)

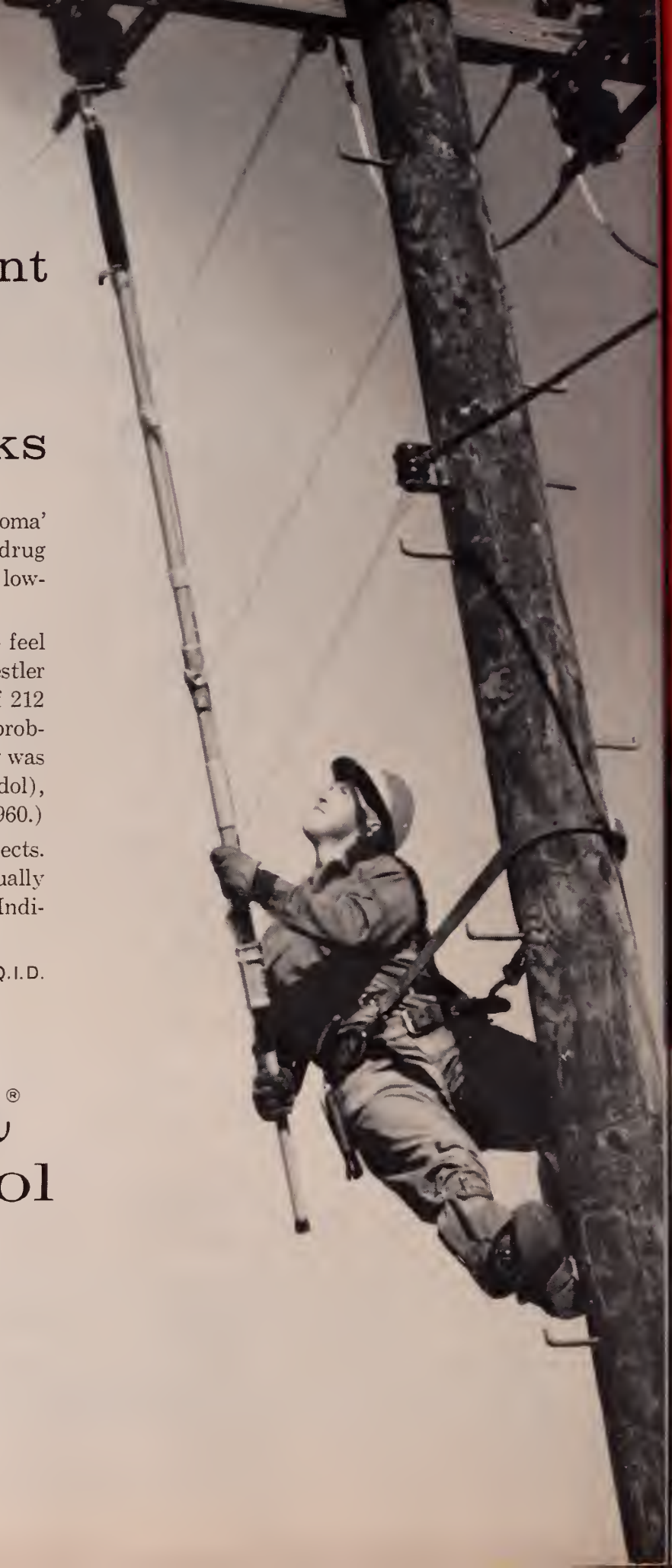
Carisoprodol seldom produces side effects. Occasional drowsiness may occur, usually at higher than recommended dosage. Individual reactions may occur rarely.

USUAL DOSAGE: ONE 350 MG. TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

Soma®
carisoprodol

Wallace Laboratories
Cranbury, New Jersey





clear the tract with Robitussin®

When summer coughs make the rounds and interfere with work and play schedules, Robitussin "clears the tract" safely. Glyceryl guaiacolate, the expectorant agent, increases respiratory tract fluid (R.T.F.) almost 200%. Increased R.T.F. helps flush mucous plugs and other irritants from the bronchi to make coughs more efficient. In the treatment of coughs in 425 infants and children, Blanchard and Ford found that Robitussin "...passed all criteria for clinical usefulness and is highly recommended."* After more than thirteen years and millions of prescriptions, no serious side effects have been reported from Robitussin. Acceptance by infants and older children has been outstanding.

*Blanchard, K., and Ford, R. A.: Clin. Med., 3:961, 1956.

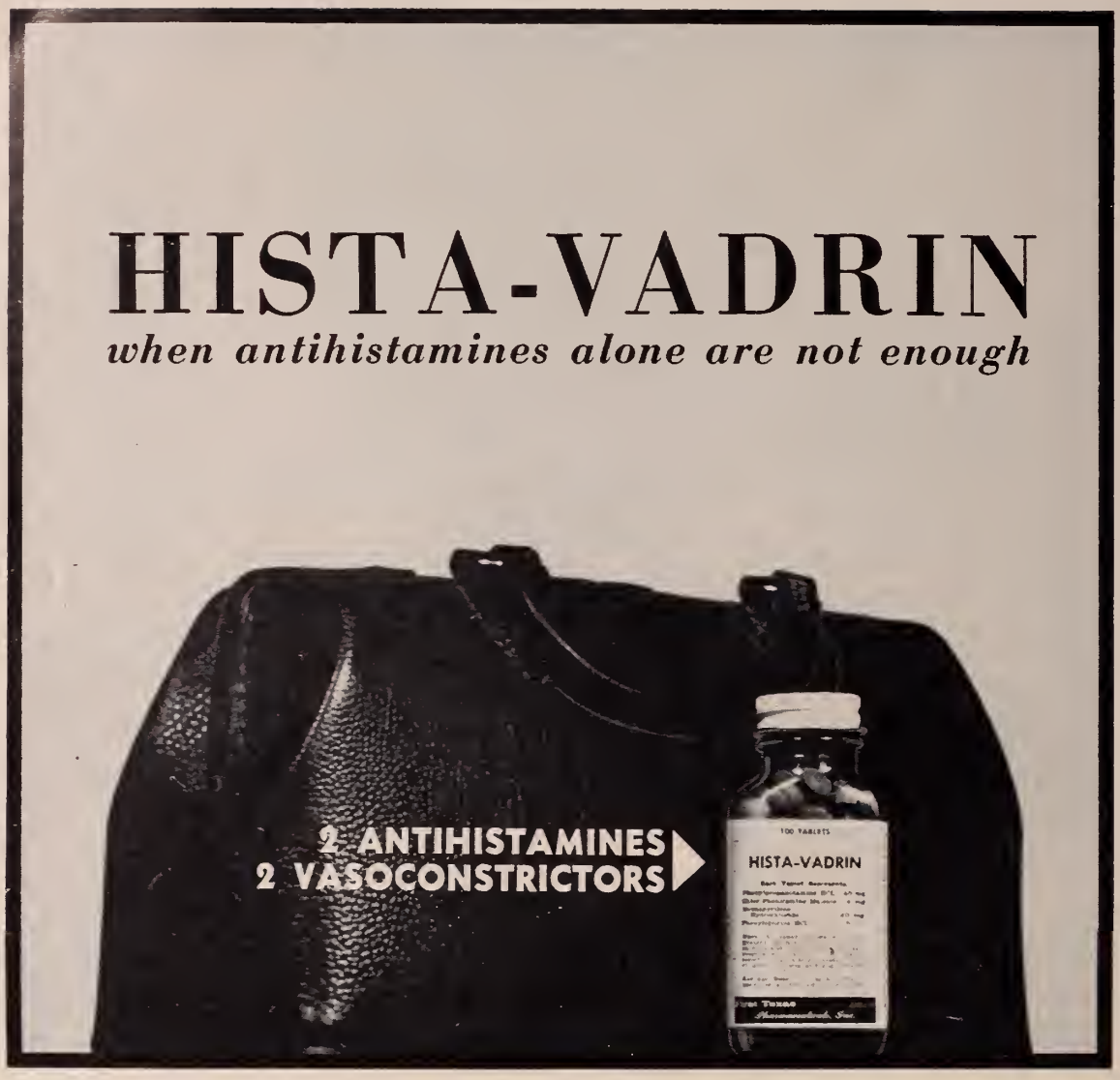
Robitussin® — each 5 cc. tsp. contains:
Glyceryl guaiacolate.....100 mg.
Alcohol 3.5%

Robitussin® A-C — Robitussin with antihistamine and codeine
Each 5 cc. tsp. contains:
Glyceryl guaiacolate 100 mg.
Pheniramine maleate 7.5 mg.
Codeine phosphate 10.0 mg.
(exempt narcotic)
Alcohol 3.5%

A. H. Robins Company, Incorporated Richmond 20, Virginia

HISTA-VADRIN

when antihistamines alone are not enough



HISTA-VADRIN, an upper respiratory decongestant, is designed for the oral relief of congestion and edema of the upper respiratory passages. The ANTIHISTAMINIC drugs methapyriline and chlor-pheniramine are noted for their ability to prevent vasodilatation and inflammatory edema caused by the release of histamine.

VASOCONSTRICTORS, phenylpropanolamine and phenylephrine oppose mucosal edema by constricting blood vessels which have been dilated by histamine and other factors involved in inflammation. These vasoconstrictors are not as likely to cause excitement or wakefulness as ephedrine or methamphetamine (1).

Indications: For the relief of hay fever, vasomotor rhinitis, and symptoms resulting from upper respiratory infections. Hista-vadrin can afford relief also in other allergic conditions such as urticaria and angioedema.

Each scored Hista-vadrin tablet contains:

Phenylpropanolamine Hydrochloride	40 mg.
Chlor-Pheniramine Maleate	4 mg
Methapyriline Hydrochloride	40 mg.
Phenylephrine Hydrochloride	5 mg.

Dosage: Adult Dose, 1 tablet every six hours or in accordance with therapeutic response.

Supplied: Slow release scored tablets designed tc disintegrate in 2 to 3 hours.

Reference available on request.

Samples and professional literature on request.

HISTA-VADRIN is another "established need" product

First Texas *Pharmaceuticals, Inc.*



HOW TO BE SURE
your young patients get the aspirin dosage you want them to have

The answer is Orange Flavored Bayer Aspirin for Children

The dosage is 1¼ grains per tablet. Mothers place such confidence in the Bayer name. And the new orange flavor is so fresh and smooth that children take it readily. (The grip-tight cap on the bottle helps keep them from taking it on their own.)





STARTING TOMORROW MORNING 

this capsule can help one of your overweight patients do without her favorite (fattening) foods at meals—and during all the hours in between.

Dexamyl® Spansule®
Trademark brand of sustained release capsules

Each No. 2 capsule contains 15 mg. of Dexedrine® (brand of dextro amphetamine sulfate) and 1½ gr. of amobarbital, derivative of barbituric acid [Warning, may be habit forming]. Each No. 1 capsule contains 10 mg. of Dexedrine (brand of dextro amphetamine sulfate) and 1 gr. of amobarbital [Warning, may be habit forming].

The active ingredients of the 'Spansule' capsule are so prepared that a therapeutic dose is released promptly and the remaining medication, released gradually and without interruption, sustains the effect for 10 to 12 hours.

INDICATIONS: (1) For control of appetite in overweight; (2) for mood elevation in depressive states.

USUAL DOSAGE: One 'Dexamyl' *Spansule* capsule taken in the morning.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Use with caution in patients hypersensitive to sympathomimetics or barbiturates and in coronary or cardiovascular disease or severe hypertension. Excessive use of the amphetamines by unstable individuals may result in a psychological dependence; in these rare instances withdrawal of medication is recommended. It is generally recognized that in pregnant patients all medications should be used cautiously, especially in the first trimester.

SUPPLIED: Bottles of 50 capsules.

Smith Kline & French Laboratories SK&F *Prescribing information Jan. 1963*



For comprehensive control of the whole pain complex...

Like a triad, the action of Trancogesic is direct and simple as 1,2,3. Its tranquilaxant component – chlormezanone – 1. reduces emotional reaction to pain . . . 2. decreases skeletal muscle spasm . . . and 3. its aspirin component dims the patient's perception of pain. Thus, Trancogesic controls the *whole* pain complex – *with unsurpassed tolerance.*

Each tablet of Trancogesic contains 100 mg. of chlormezanone and 300 mg. (5 grains) of aspirin. The usual adult dosage is 2 tablets of Trancogesic three or four times daily. Reactions to Trancogesic have been minor – gastric distress, and an occasional weakness, sedation or dizziness. Ordinarily, these may be reversed by a reduction in dosage or temporary withdrawal of the drug. Trancogesic is contrainindicated in persons known or suspected to have an idiosyncrasy to aspirin.

WINTHROP LABORATORIES, NEW YORK 18, N. Y.

TRANCOGESIC*
CHLORMEZANONE with ASPIRIN
*TRADEMARK 100 MG. 300 MG.

Winthrop

1777M

Lifts depression.



"I feel like my old self again!" Thanks to your balanced therapy with 'Deprol', her depression has lifted and her mood has brightened – while her anxiety and tension have been calmed. She sleeps better, eats better, and normal drive and interest have replaced her emotional fatigue.

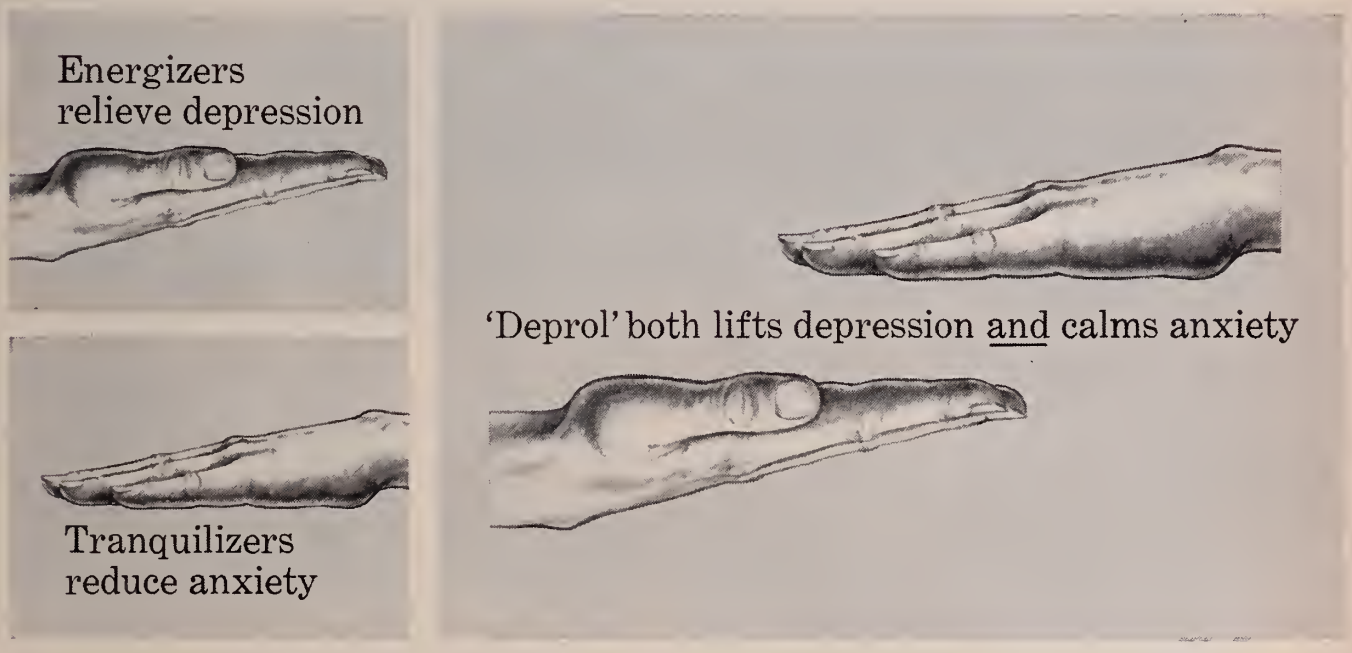
as it calms anxiety

Brightens mood...relaxes tension

Energizers may stimulate the depressed patient, but they often aggravate anxiety and insomnia. Tranquilizers may help the anxious patient, but they often deepen depression and emotional fatigue.

'Deprol' avoids these "seesaw" effects; it relieves both depression and anxiety. Moreover, it does not cause liver damage, psychotic reactions or changes in sexual function.

Slight drowsiness and, rarely, allergic reactions, due to meprobamate, and occasional dizziness or feeling of depersonalization in higher dosage, due to benactyzine, may occur. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.



Usual Dosage: 1 tablet q.i.d. May be increased gradually, as needed, to 3 tablets q.i.d.; with establishment of relief, may be reduced gradually to maintenance levels.

▲Deprol▲®

meprobamate 400 mg.
+ benactyzine 1 mg.

CO-9250

WALLACE LABORATORIES / *Cranbury, N.J.*



Help protect the kidneys and other threatened organs

When treatment of hypertension is effective the danger of damage to the renal system is reduced.[1-2] "Hypertensive patients suffer from vascular deterioration roughly proportional to the severity of the hypertension... Reduction of blood pressure to normotensive levels reduces or arrests the progress of vascular damage with a resultant decrease in morbidity and mortality."[1] *Because Rautrax-N lowers blood pressure so effectively, it will help provide this important protection not only for the kidneys but also for the heart and brain of your hypertensive patients.* Rautrax-N is effective in mild,[3] moderate,[3,4] or severe hypertension.[4,5]

Dosage: Initially, 1 to 4 tablets daily preferably at mealtime. For maintenance, 1 or 2 tablets daily.

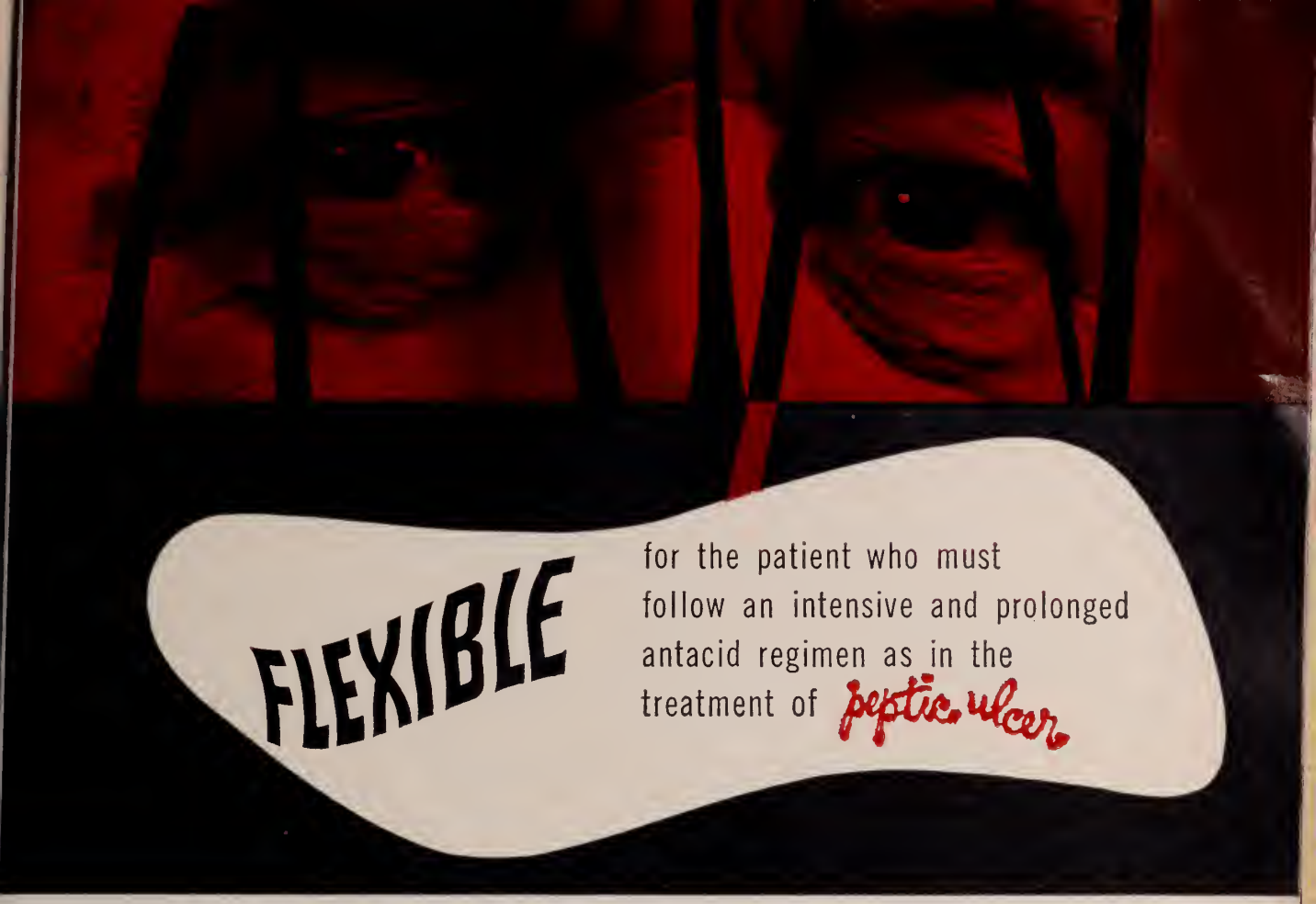
Side effects and precautions: Rauwolfia preparations may cause reversible extrapyramidal symptoms and emotional depression. Caution indicated in use with depression, suicidal tendencies, peptic ulcer. Minor side effects: diarrhea, weight gain, nausea, drowsiness. Bendroflumethiazide may cause reversible hyperuricemia and/or gout, unmask latent diabetes, increase glycosuria in diabetics. Caution indicated in use for patients on digitalis, with severely damaged kidneys, renal insufficiency, increasing azotemia, cirrhosis. Contraindicated in complete renal shutdown. Minor side effects: leg or abdominal cramps, pruritis, paresthesias, mild rashes.

Supply: Rautrax-N—capsule-shaped tablets providing 50 mg. Raudixin® [Rauwolfia serpentina whole root], 4 mg. Naturetin® [bendroflumethiazide], and 400 mg. potassium chloride. *Rautrax-N Modified*—50 mg. Raudixin [Rauwolfia serpentina whole root], 2 mg. Naturetin [bendroflumethiazide], and 400 mg. potassium chloride, in capsule-shaped tablets. For full information, see your Squibb Product Reference or Product Brief.

References: (1) Moyer, J. H., and Heider, C.: Am. J. Cardiol. *9*:920 (June) 1962. (2) Brest, A. N., and Moyer, J. H.: Pennsylvania M. J. *63*:545 (Apr.) 1960. (3) Berry, R. L., and Bray, H. P.: J. Am. Geriatrics Soc. *10*:516 (June) 1962. (4) Hutchison, J. C.: Current Therap. Res. *4*:610 (Dec.) 1962. (5) Feldman, L. H.: North Carolina M. J.: *23*:248 (June) 1962.

SQUIBB
Squibb Quality
—the Priceless Ingredient
SQUIBB DIVISION Olin

RAUTRAX®-N RAUWOLFIA SERPENTINA WHOLE ROOT (50 MG.), BENDROFLUMETHIAZIDE (4 MG.) WITH POTASSIUM CHLORIDE (400 MG.), SQUIBB



FLEXIBLE

for the patient who must follow an intensive and prolonged antacid regimen as in the treatment of *peptic ulcer*

as reactive in tablet form . . .

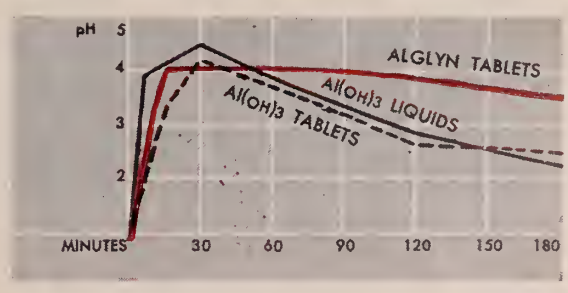
ALGLYN®

Dihydroxy aluminum aminoacetate

The superiority of Alglyn (dihydroxy aluminum aminoacetate) as an antacid over ordinary aluminum preparations is quite pronounced. Not only do Alglyn Tablets act as rapidly as aluminum hydroxide gels and magmas, but they maintain a much more effective pH for a longer time (see chart).

Furthermore, Alglyn Tablets are decidedly superior when antacid-belladonna therapy is indicated. Ordinary aluminum preparations may actually *ad*sorb as much as 80% of the spasmolytic drug, as compared to only 7% for Alglyn Tablets. In addition, Alglyn contains no sodium and less aluminum.

Supplied in bottles of 100 0.5 Gm. tablets. Also as Belglyn® (with belladonna), and as Malglyn® (with belladonna and phenobarbital). Literature available upon request. *(See pg. 549 PDR for complete product information.)*



BRAYTEN

BRAYTEN PHARMACEUTICAL COMPANY *Chattanooga 9, Tennessee*

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

WHO PAYS THE OFFICE RENT?

And telephone bill...and utilities...and employee salaries...*if YOU are sick or injured?*

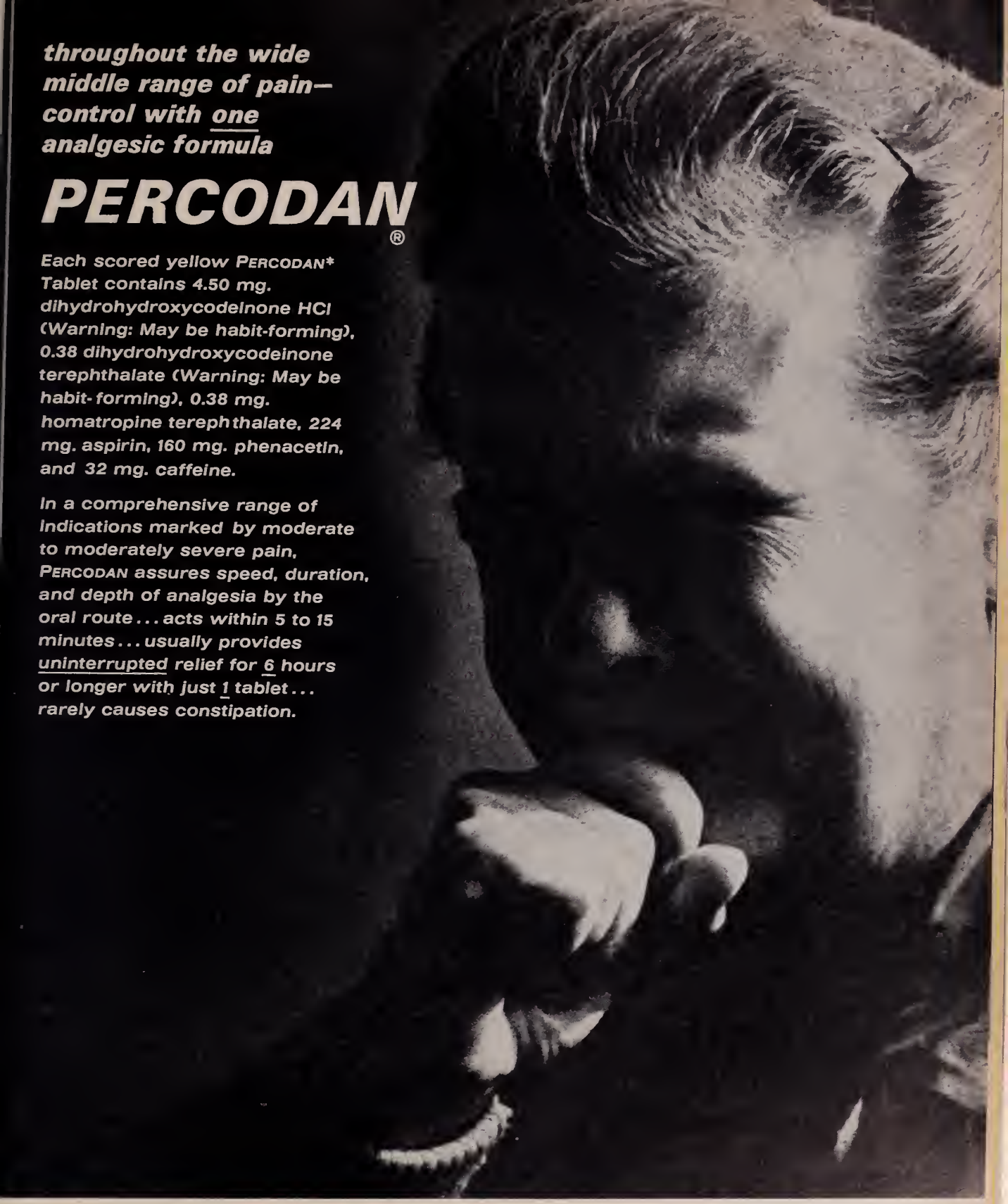
Physicians Mutual Insurance Company (The Doctors' Company) will help pay all of your usual office expenses when you are sick or disabled—if you are the fortunate owner of our new, low-rate Office Overhead Expense Policy.

Premiums are tax deductible, too!

Write today for free information . . without obligation.

PHYSICIANS MUTUAL INSURANCE COMPANY

115 South 42nd St. Omaha 31, Nebraska



throughout the wide middle range of pain— control with one analgesic formula

PERCODAN®

Each scored yellow PERCODAN* *Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl (Warning: May be habit-forming), 0.38 dihydrohydroxycodeinone terephthalate (Warning: May be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. aspirin, 160 mg. phenacetin, and 32 mg. caffeine.*

In a comprehensive range of indications marked by moderate to moderately severe pain, PERCODAN *assures speed, duration, and depth of analgesia by the oral route... acts within 5 to 15 minutes... usually provides uninterrupted relief for 6 hours or longer with just 1 tablet... rarely causes constipation.*

Average Adult Dose—1 tablet every 6 hours. **Side Effects and Contraindications**—Although generally well tolerated, PERCODAN may cause nausea, emesis, or constipation in some patients. PERCODAN should be used with caution in patients with known idiosyncrasies to aspirin or phenacetin, and in those with blood dyscrasias. **Also available:** PERCODAN®-DEMI, containing the complete PERCODAN formula but with only half the amount of salts of dihydrohydroxycodeinone and homatropine. Both products are on oral Rx in all states where laws permit. Narcotic order required. **Literature on request.**

ENDO LABORATORIES Richmond Hill 18, New York

Endo®

*U. S. Pats. 2,628,185 and 2,907,768



Protects your angina patient better than vasodilators alone

'Miltrate' contains both pentaerythritol tetranitrate, which dilates the patient's coronary arteries, and meprobamate, which relieves his anxiety about his condition. Thus 'Miltrate' protects your angina patient better than vasodilators alone.

Pentaerythritol tetranitrate may infrequently cause nausea and mild headache, usually transient. Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Like all nitrate-containing drugs, 'Miltrate' should be given with caution in glaucoma.

Dosage: 1 or 2 tablets *before meals* and at bedtime. Individualization required.
Supplied: Bottles of 50 tablets.

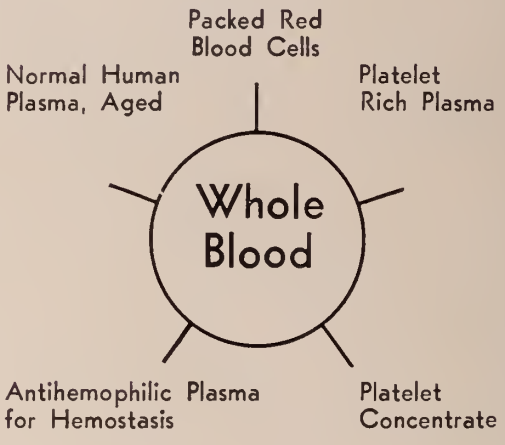
CML-9646

Miltrate®
meprobamate 200 mg.+
pentaerythritol tetranitrate 10 mg.

WALLACE LABORATORIES / *Cranbury, N. J.*

Follow the trend to

BLOOD COMPONENT THERAPY

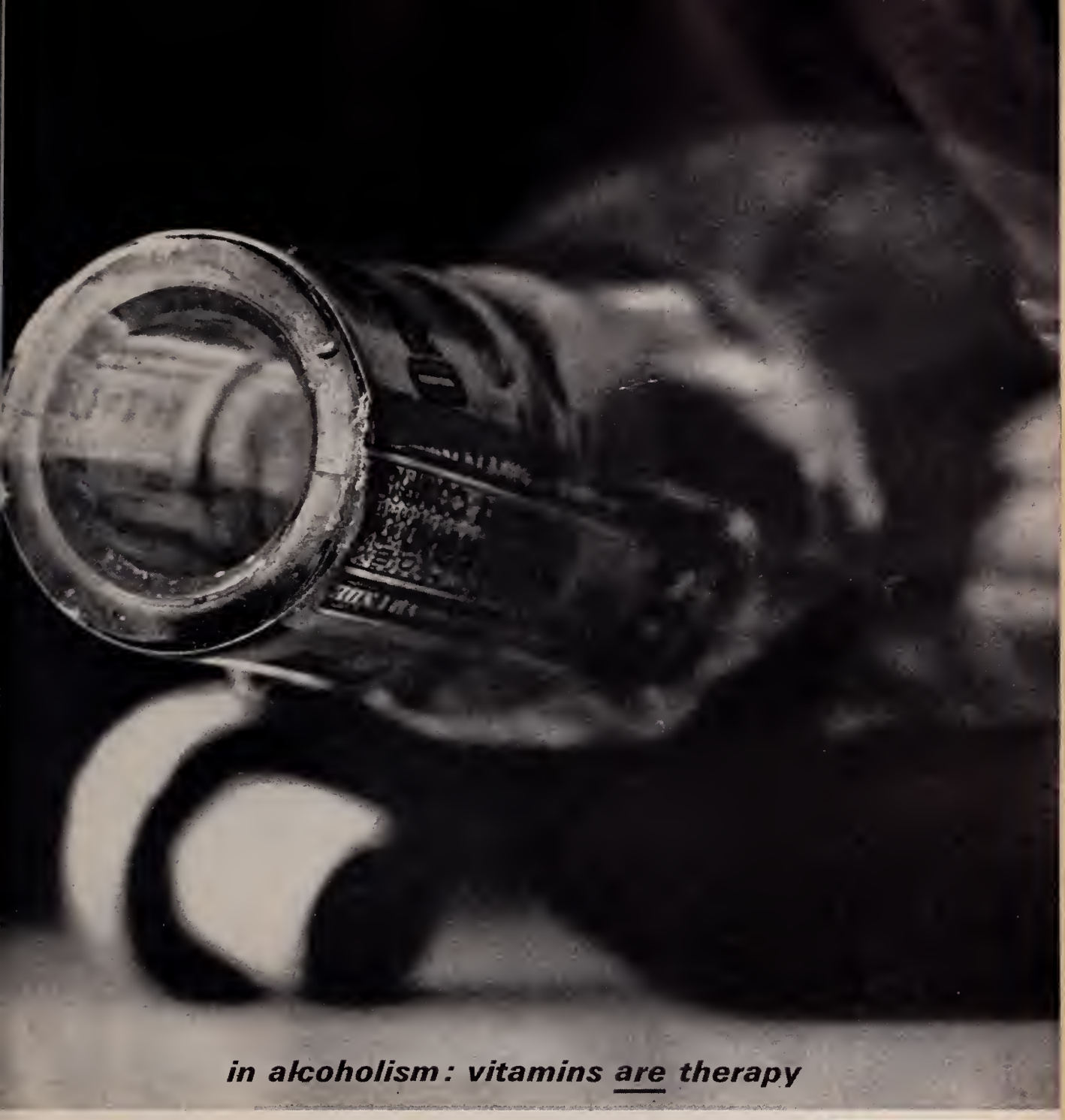


Best for the patient and More Economical.

All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE



in alcoholism: vitamins are therapy

A full "comeback" for the alcoholic is partly dependent on nutritional balance... aided by therapeutic allowances of B and C vitamins. Typically, the alcoholic patient is seriously undernourished... from long-standing dietary inadequacy, from depletion of basic reserves of water-soluble vitamins.

FOR PROFESSIONAL

RECOMMENDATION ONLY

Each capsule contains: Vitamin B_1 (Thiamine Mononitrate)...10 mg. / Vitamin B_2 (Riboflavin)...10 mg. / Niacinamide... 100 mg. / Vitamin C (Ascorbic Acid)...300 mg. / Vitamin B_6 (Pyridoxine HCl)...2 mg. / Vitamin B_{12} Crystalline... 4 mcgm. / Calcium Pantothenate...20 mg. Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

6315-3

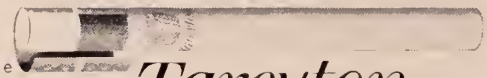
STRESSCAPS®

Stress Formula Vitamins Lederle



Flavor you never thought you'd get from any filter cigarette!

You'll never know how satisfying filter smoking can be until you try Tareytons. Fine, flavor-rich tobaccos go into each Tareyton. Then the famous Dual Filter brings out the best taste of these choice tobaccos. Sound too good to be true? Pick up a pack of Tareytons today and see for yourself.



Dual Filter makes the difference

DUAL FILTER Tareyton

Product of The American Tobacco Company — Tobacco is our business



In Sprains, Strains and Muscle Spasm, 'Soma' Compound

numbs the pain...not the patient

A potent analgesic and a superior muscle relaxant

1. A sprain or fracture is not a big clinical problem—but it does hurt. And if there is housework to do and kids to mind, the patient needs something to numb the pain.

2. A.P.C. compounds have limited usefulness; and the patient can buy them without your prescription. Unfortunately, most of them are too mild to be effective for sprains—and more potent products too often make the patient feel 'dopey'.

3. 'Soma' Compound is ideal in these cases. Since it contains both 'Soma' (carisoprodol) and acetophenetidin it is both a potent analgesic and a superior muscle relaxant; it also contains caffeine to offset any drowsiness *("numbs the pain...not the patient").*

4. Why not try 'Soma' Compound? Dosage is 1 or 2 tablets q.i.d. For more severe pain, try 'Soma' Compound + Codeine. Dosage: 1 or 2 tablets q.i.d.

5. Hypersensitivity to carisoprodol may occur rarely. Codeine may produce addiction, nausea, vomiting, constipation or miosis.

Soma® Compound

carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg.

Soma® Compound + Codeine

carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg., codeine phosphate 16 mg. (Warning—may be habit forming.)

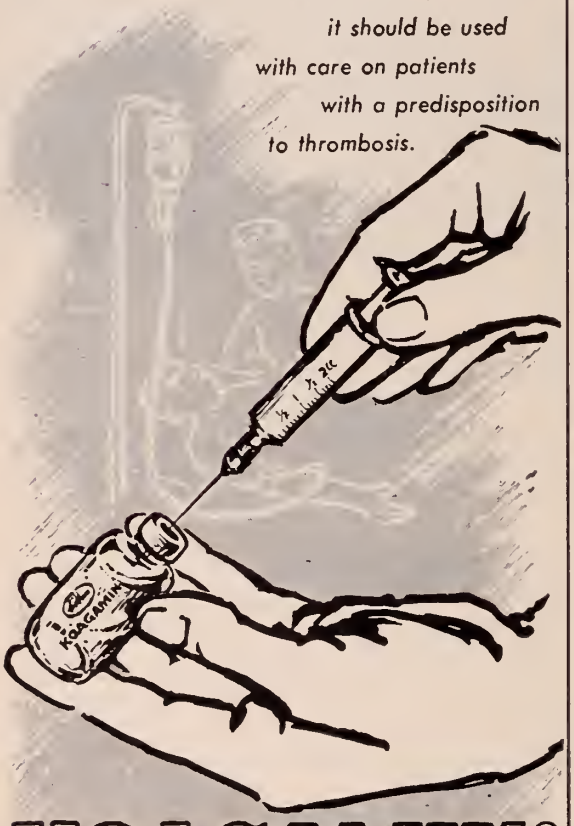
WALLACE LABORATORIES / *Cranbury, N.J.*

CSO-9193

reduce or obviate the need for transfusions and their attendant dangers

KOAGAMIN is indicated whenever capillary or venous bleeding presents a problem.

KOAGAMIN has an outstanding safety record -- in 25 years of use no report of an untoward reaction has been received; however, it should be used with care on patients with a predisposition to thrombosis.



KOAGAMIN®

parenteral hemostat

Each cc contains: 5 mg. oxalic acid, 2.5 mg. malonic acid, phenal 0.25%; sodium carbonate as buffer.

Complete data with each 10cc vial. Therapy chart on request.

Chatham CHATHAM PHARMACEUTICALS, INC.
Newark 2, New Jersey

Distributed in Canada by Austin Laboratories, Ltd. • Paris, Ontario



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

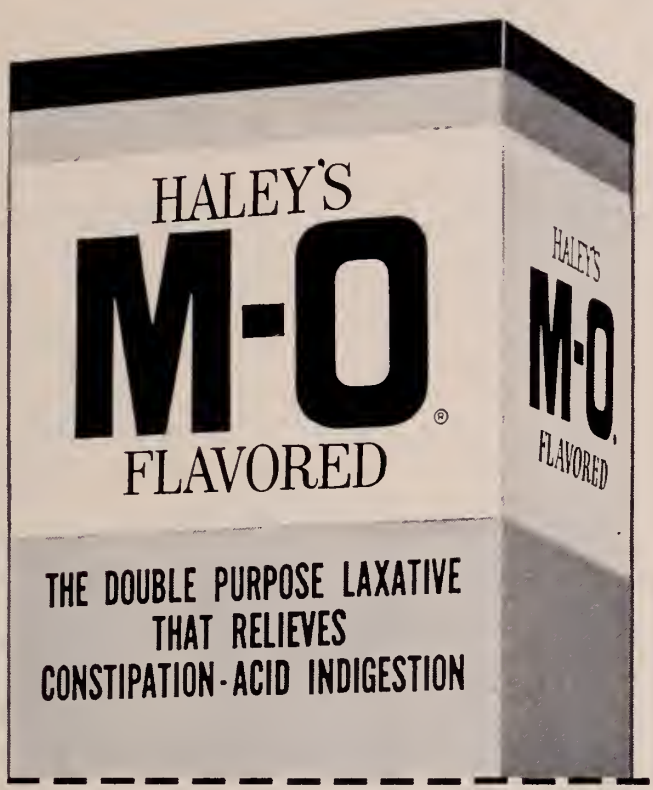
Burdick®

THE BURDICK CORPORATION
MILTON, WISCONSIN

Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities

KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.

NOW ALSO IN FLAVORED FORM!



BOTTLES OF
4 OZ., 8 OZ.,
1 PT., 1 QT.

Antacid–Laxative–Lubricant to help correct constipation

Magnesium Hydroxide plus pure mineral oil make *Haley's M-O* a smooth working antacid-laxative-lubricant that efficaciously relieves constipation and attendant gastric hyperacidity.

The oil globules in *Haley's M-O* are minutely subdivided to assure uniform distribution and thorough mixture with intestinal contents. Oil leakage is thus avoided and a comfortable evacuation is effected through the stimulation of normal intestinal rhythm and blunted defecation reflex.

May we send samples for your evaluation? Just write:

THE CHAS. H. PHILLIPS CO.

Division of Sterling Drug Inc., 1450 Broadway, New York 18, N. Y.



It is unlawful to duplicate this key

This is the key that opens the box that contains the labels. Only authorized supervisory personnel have the key to transfer labels from the "lockup box" to the labeling machine. ■ These responsible Lilly employees regard labels as serious business. To make certain that the right label appears on each container, all labels are kept under lock and key until needed on the finishing line. Only the quantity needed to finish the lot is dispensed. When transferred to the finishing belt, the appropriate number of labels is placed in the labeling machine. Excess labels are put in the lockup box until needed. At night, the supervisor returns unused labels to the box lest some get lost or misplaced. ■ This is just one more precaution in an endless list of rules that contribute immeasurably to the quality of the finished product.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

300192

Journal of the Tennessee Medical Association
OWNED AND PUBLISHED BY THE ASSOCIATION
Volume 56 SEPTEMBER, 1963 Number 9

Colon Lesions Simulating Acute Appendicitis*

W. ANDREW DALE, M.D., Nashville, Tenn.

Occasionally in the clinician's experience he will encounter circumstances suggestive of appendicitis, and at operation find that some other lesion accounted for the clinical picture. Most of these errors cannot be avoided. Some of the illustrative cases described point to the need of careful exploration at laparotomy if the appendix is normal.

It is often difficult to be certain of the diagnosis of acute appendicitis. The list of lesions simulating appendicitis is lengthy and includes some true medical curiosities. It is, however, important that unusual lesions be recognized and treated properly and to this end the following cases of colonic lesions simulating acute appendicitis are discussed.

The 8 cases comprising this group of clinical diagnostic errors were all seen personally either as the primary surgeon or as a consultant, and prompted review of the literature in an effort to determine the best management of these lesions since they do not occur often in the experience of any individual surgeon.†

Table 1 summarizes the several colon lesions likely to cause clinical confusion with acute appendicitis.

Table 1

Colonic Lesions Simulating Appendicitis

Inflammation
- (1) Diverticulitis
  - (a) alone
  - (b) with ulcer
  - (c) with perforation or fistula
- (2) Cecitis
  - (a) primary:
    - i nonspecific
    - ii granuloma
    - iii parasitic
  - (b) with terminal ileitis
- (3) Epiploic appendagitis

Tumor
- (1) Carcinoma
- (2) Sarcoma
- (3) Lymphoma

*Presented to the Middle Tennessee Medical Association, Franklin, Tenn., May 16, 1963.

†These cases were culled from total experience in which there was 76% diagnostic accuracy in operations for acute appendicitis.

Inflammatory Lesions

(1) Cecitis.

All types of inflammatory processes occur in the cecum and vary from small localized areas of thickening to diffuse phlegmonous lesions involving the entire cecum and a portion of ascending colon. The relation of the various inflammatory lesions occurring in the cecum and ascending colon is not completely clear. For example, simple ulcers may be forerunners of acute cecitis or they may occur as completely separate entities. Simple flat ulcers may occur and actually go on to perforation with local or generalized peritonitis. DeCamp and Penick[1] in 1956 reported 10 such cases and reviewed the literature in relation to them. They pointed out that the pathologic studies indicated the bacterial etiology of such cecal inflammation and that the response of all of them to antibacterial therapy was further evidence of this, and that considerable reliance could be placed on antibiotics if they were started before major complications had occurred. The chief reasons for surgery were complications which might necessitate drainage, cecostomy or bowel resection. DeCamp and Penick believed that appendectomy could be performed without ill effect if the base of the appendix lay in healthy cecal tissue so a proper purse string suture could be performed.

Case 1. H. B., a 60 year old man who had anorexia and persistent pain in the right lower quadrant associated with low fever and leukocytosis was operated upon for acute appendicitis.

Through a McBurney incision (later extended laterally) the cecum was found to be adherent to the anterior peritoneum and had to be gently pushed away for exposure. The entire cecum was boggy with edema and quite indurated. The base of the appendix was edematous but the appendix itself did not appear inflamed. The terminal ileum was edematous but did not have the appearance of terminal ileitis. A drain was placed through a stab wound to the retroperitoneal region behind the mobilized cecum and the abdomen was closed without appendectomy. Tetracycline was administered postoperatively and convalescence was uneventful.

Comment. The cecum was mobilized by incising the posterior peritoneal attachment so the hand can be placed behind this and the cecum more carefully examined to be certain that a tumor was not present. When it was found there was only generalized inflammation, nothing further was done and appendectomy was not performed because of edema about its base.

Case 2. A. W., a 21 year old woman was observed in the hospital for 24 hours with atypical signs of appendicitis.

Because of their persistence, operation was done through a McBurney incision which was later extended medially. The cecum was diffusely thickened and the serosal surface bled very easily. The appendix appeared normal as did the distal ileum. Because of a diffuse involvement of the wall of the cecum appendectomy was thought risky; therefore the abdomen was simply closed without removal of either the appendix or other organ. Tetracycline was administered following operation. Postoperative convalescence was uneventful.

Comment. This generalized cecitis occurred in a considerably younger patient than in the previous instance and was recognized preoperatively as not being entirely typical of appendicitis. Appendectomy was not performed because of inflammation about the base of the appendix. There was again an excellent convalescence using a tetracycline.

Case 3. M. R., a 25 year old white woman was operated upon for acute appendicitis following a 24 hour history of pain in the right lower quadrant with nausea. The appendix was normal. There was a thickened cecal wall over a 4 cm. area with a central depression by palpation which represented ulceration in the area of cecitis. The tissue about the appendix was satisfactory and appendectomy was performed.

Following an uneventful postoperative course a barium enema performed 4 weeks later was entirely normal.

Comment. This cecitis with central ulceration was managed by tetracycline. Appendectomy was done because the inflammation did not involve the base of the appendix. The x-ray examination a month later showed no abnormalities and indicated complete resolution of the process.

(2) Diverticulitis.

Wagner and Zollinger,[2] in 1961, reviewed 318 reported cases of surgically treated diverticulitis of the right colon and summarized their own 18 cases. Diverticulitis of the right colon occurred in younger patients than did diverticulitis of the left colon. There were somewhat more males rather than the usual female predominance in involvement of the left side. Four per cent of colonic diverticula occurred in the ascending colon, 2% in cecum and the remainder in the transverse and left colon.

Miangolarra,[3] in 1961, analyzed 758 patients at the Charity Hospital and at the Veterans Administration Hospital in New Orleans over an 18 year period with diverticulosis of the colon. Fourteen and 15% respectively of these patients had diverticula of the right side of the colon alone, while another 17% and 13% respectively had diverticula of both sides of the colon. He particularly noted the danger of perforation of diverticulitis in elderly people. Forty-seven percent of patients with diverticula limited to the right side of the colon had had hemorrhage.

The difficulty in preoperative diagnosis was attested by the 5% incidence of correct diagnosis prior to operation.[2] (If the patient had a previous appendectomy the diagnostic accuracy increased.)

Every conceivable surgical procedure for acute diverticulitis of the right colon has been done and includes simple closure of the abdomen without drainage, closure of perforation with or without cecostomy, diverticulectomy with or without resection of a portion of the adjacent cecal or colonic wall, and resection of varied lengths of the cecum and ascending colon including right colectomy with ileotransverse colostomy. Wagner and Zollinger[2] proposed six categories of diverticulitis of the right colon based upon gross pathologic findings at operation, and suggested that treatment be based upon these findings. Their recommendations therefore vary from simple diverticulectomy (with or without resection of the

bowel wall depending on the amount of inflammation) to drainage of abscess or resection of a portion of, or all of the right colon when there is diffuse involvement or inability to differentiate a lesion from carcinoma.

Nicholas[4] reported that 15% of his 24 patients had presented themselves with bleeding. He as well as Jenkins[4] and Swenson[4] recommended open colotomy to determine whether or not a carcinoma was present.

In summary, the extent of involvement of the bowel wall should determine surgical management. When inflammation is local the diverticulum may be excised with or without inversion of the stump. With increasing cellulitis about the base diverticulectomy and resection of the indurated area are advisable, provided the bowel wall can be closed without tension and without compromise of the ileocecal valve and with the placement of sutures in healthy tissue. If extensive induration compromises the ileocecal valve, or if extensive involvement of the right colon has occurred, resection of the bowel may be required either with or without preliminary drainage.

Case 4. E. L., a 35 year old woman had symptoms and signs of acute appendicitis.

Through a McBurney incision the appendix was found to be normal. There was a firm area in the ascending colon 4 cm. in diameter, with a punched-out ulceration in the center of this which could be felt by palpation. On the serosa there was considerable fibrin. There were two small diverticula in the vicinity.

This patient had had previous bouts of pain and the ulcer appeared near perforation; therefore an immediate right colectomy and end-to-end ileotransverse colostomy was performed through an extension of the McBurney incision. The postoperative course was uneventful. Sections through the ulcer showed inflammatory changes without evidence of tumor.

Comment. Though there was an ulcer in the center of the area of inflammation, the nearby diverticula led to classification of acute diverticulitis rather than of simple ulcer of the cecum. Resection was carried out because of the fear that perforation was about to occur and because of the presence of other diverticula nearby.

Case 5. A young man with solitary diverticulitis of the cecum was operated upon for acute appendicitis. Because of some fibrin upon the diverticulum a right colectomy with end-to-end reconstruction via an ileotransverse colostomy was performed. The postoperative course was uneventful.

Comment. Near perforation of the diverticulum indicated need for some type of resection. In retrospect, a local excision might have been preferable to the right colectomy.

(3) Epiploic Appendagitis.

The epiploic appendages of the colon are fat-filled, serosa-covered and occur on the appendix and the entire colon above the peritoneal reflection of the rectum. They number approximately 100 and are intimately related to the longitudinal bands of the colon. Their blood supply derives from small branches of the circular arteries which vascularize adjacent segments of colon. Case,[5] in 1959, reviewed the literature and added 4 cases of epiploic appendagitis. Not only does acute and chronic inflammation occur in these appendages, but also torsion, thrombosis and infection and rarely intussusception. Abscess formation and even general peritonitis may occur secondary to inflammation or torsion and intestinal obstruction may occur in connection with inflammatory adhesive bands. Although, Lynn, Dockherty and Wall,[6] in 1956, found only 156 reported cases of diseased epiploic appendages, it is obvious that far more than this have occurred since I have personally seen 4 instances of epiploic appendagitis and most other surgeons are well aware of the entity. Only one of the 4 cases simulated acute appendicitis.

Case 6. P. S., a 31 year old white man with right lower quadrant signs of acute appendicitis, was explored through a McBurney incision and the appendix found to be normal.

The incision was extended medially across the right rectus muscle because a mass was palpable in the sigmoid colon. This proved to be an inflamed, edematous, epiploric fat tab covered with fibrin. It was allowed to remain in place. The appendix was removed and the wound closed without drainage. Convalescence was uneventful.

Comment. The epiploic appendagitis occurring in the sigmoid colon apparently caused localization in the right lower quadrant because the loop of the sigmoid lay a little to the right of the midline. Since there did not appear to be imminent perforation nothing further was done to the sigmoid appendagitis.

Tumors

(1) Carcinoma.

Patterson,[7] in 1956, discussed 17 cases where cecal carcinoma was found at the time of exploration for appendicitis and noted the co-existence of the two lesions occasionally when the appendix was blocked by tumor. He advocated early and radical operations and believed that while some particularly large or foul abscesses might require preliminary drainage, immediate right colectomy should be done wherever possible (even in the face of peritonitis).

Rives[8] noted the relatively large numbers of carcinomas of the cecum which were discovered at the time of operation for acute appendicitis, and stated that in 22 of his 151 cases of cecal carcinoma the operation had been performed as an emergency with a diagnosis of an acute intra-abdominal condition. In 13 of these 22 emergencies the diagnosis was either acute appendicitis or acute appendicitis with perforation (with carcinoma to be ruled out in the latter). He stated that while he had previously advocated ileotransverse colostomy with a secondary right colectomy ten to fourteen days later, a more aggressive approach was probably indicated as advocated by Patterson.

Case 7. A. A., a 61 year old man had generalized peritonitis with a small incarcerated umbilical hernia and also with signs localizing in the right lower quadrant.

A transverse incision was made near the umbilical hernia in order to be able to manage that should it be the source of the leak. Fifteen hundred cubic centimeters of free purulent fluid was immediately encountered and suctioned away. The incision was enlarged to the right and the appendix found to be retroperitoneal without particular inflammation. The cecum was the site of four flat areas of fibrin with a perforation in one of these. The wall of the cecum was greenish in color and gangrenous. Because of the gangrene the cecum was exteriorized through a separate stab wound after mobilization of its peritoneal attachments. Further exploration was carried out and a golf ball-sized mass of the hepatic flexure was found which grossly was carcinoma. There was also considerable fibrin in this area and it seemed likely that another perforation had occurred in the hepatic flexure. Further peritoneal dissection was done to free the hepatic flexure in order to inspect it completely, and at the end of this dissection it appeared safer to proceed and resect the bowel even though acute peritonitis was present. The continuity was re-established by an end-to-end ileotransverse colostomy. Retroperitoneal drains were led out stab wounds.

Following a stormy convalescence the patient died on the 6th postoperative day of continuing peritonitis associated with leakage of the suture line. There was associated necrotizing bronchopneumonia and pulmonary edema as well as recent myocardial infarction.

Comment. Immediate resection was thought to be the best way out of a dangerous situation. The disadvantages of an ileostomy following resection of the right colon led to immediate restoration of continuity of the alimentary canal by ileocolostomy but was followed by a fatal leak from the suture line.

(2) Lymphoma.

Case 8. M. G., a 9 year old boy, was observed in the hospital for over 24 hours with mild signs in the right lower quadrant.

Operation was done because of persistence and inability to rule out appendicitis. Through a McBurney incision there was found to be a small amount of clear free fluid. The appendix was quite long and its distal extremity was edematous and bulbous with a tiny flake of fibrin at one point. Lymph nodes in the distal ileomesentery were enlarged and firm but there were no changes in the ileum itself. Appendectomy was carried out upon the gross diagnosis of acute appendicitis. Early convalescence was uneventful.

The pathologist reported that the appendix was normal except for some serosal inflammatory changes and the clinical diagnosis was changed to acute mesenteric lymphadenitis because of the enlarged lymph nodes which had been felt.

Ten days following operation there was recurrent pain in the right lower quadrant. Continuation of such episodes resulted in re-admission to the hospital and a particularly severe bout of abdominal pain led to a plain film which indicated small bowel obstruction. Exploration was carried out through a longitudinal incision and a small amount of free fluid was found. The distal ileum was intussuscepted into the cecum and this was impossible of reduction. A right colectomy with ileotransverse colostomy was performed and the leading point in the intersusceptum was found to be a 3 cm. polypoid mass at the ileocecal valve. Its posterior position had apparently resulted in the surgeon overlooking it at the time of exploration of the cecum and of the entire small bowel at the time of the original appendectomy.

Comment. The importance of inspection of all parts of the cecum became clear from this case where the small tumor of the posterior aspect of the ileocecal valve was missed at the first operation. Postoperative irradiation was given.

Discussion

Because of inability to be absolutely certain prior to operation whether each in-

stance of pain in the right lower quadrant is acute appendicitis, some diagnostic errors will continue to occur. A patient whose course has been carefully followed may develop such symptoms at any time that further observation becomes a radical and unwise course, and operation becomes the conservative approach. Although there is no desire to advocate needless operations, the "safe" error of laparotomy with removal of a noninflamed appendix is certainly preferable to the "unsafe" error of observation of a clinically similar case until appendiceal perforation occurs.

When laparotomy reveals an appendix which is not acutely inflamed, further exploration to determine the cause of pain will ordinarily show the actual lesion. The surgeon must however be on the alert for all sorts of unusual situations and this is particularly attested to by Cases 7 and 8. In Case 8 the appendix was believed at the initial laparotomy to show acute inflammatory signs and was therefore removed. Only later did it become apparent that the inflammation was secondary to intussusception which had become spontaneously reduced with residual periappendicitis. Incomplete exploration of the cecum led to closure of the abdomen without discovery of the lymphoma and the necessity for a secondary operation. In Case 7, the inflammatory ulcer of the cecum was discovered immediately but the underlying partially obstructing carcinoma of the hepatic flexure was not recognized until cecal mobilization resulted in the discovery of the tumor in the hepatic flexure. This might have very easily been overlooked and simple cecostomy performed upon the diagnosis of cecal ulcer.

Proper management of these colonic lesions simulating appendicitis must be based upon the individual situation and knowledge of the natural history of the lesion encountered. Many instances of cecal inflammation can be managed without the necessity for surgical resection, but there are some which threaten perforation or where perforation has already occurred and where a more radical approach will be necessary. If resection is done, it must be performed upon bowel which has not been prepared and this circumstance is an excellent indication for a "closed" technic of resection as opposed to the usual "open technic." For this reason every surgeon should familiarize himself with the details of closed technics of anastomosis prior to the necessity of performance at the time of emergency operation. While it is recognized that closed technics are not truly aseptic, they do greatly decrease contamination and are relatively easy of performance while permitting a very adequate luminal reconstitution. The chief pitfall in the closed resection is turning in a wide band of tissue at the anastomosis. This can be avoided by careful technic.

The question of whether or not appendectomy should be performed always arises and can best be decided after examination of the wall of the cecum for inflammatory changes. Just as it is most undesirable to perform anastomosis with a suture line lying in inflamed or edematous bowel in any other part of the alimentary canal, it is similarly unwise to perform appendectomy if the stump must be turned in beneath an inflamed cecal wall. (The necessity to do this occasionally in acute appendicitis is recognized; in this situation it may be preferable at times simply to ligate the appendix and drop it without attempt at inversion.)

The local instillation of antibiotics for rapid preparation of the bowel has been advocated. Cohn[9,10] however, believes peritoneal lavage with Kanamycin (1 Gm. in 50 to 100 cc. of saline) just prior to closure is just as effective as efforts to irrigate the bowel itself. This fits in well with the scheme of closed resection and anastomosis outlined above.

Conclusions

Eight cases of colonic lesions clinically simulating acute appendicitis and requiring emergency operation are discussed in relation to diagnosis and management at the time of operation and thereafter. The variety of inflammatory lesions which occur in the colon is emphasized and treatment should be based upon evaluation of the type of that lesion, its stage of progression and the presence or likelihood of complications from it. Appendectomy should be decided upon the basis of involvement of the cecum where the base of the appendix will be

turned in. Careful search for small tumors of the colon is always important.

References

1. DeCamp, P. T. and Penick, R. M., Jr.: Acute Nonspecific Inflammatory Lesions of the Cecum, Ann. Surg. 143:665, 1956.

2. Wagner, D. E. and Zollinger, R. W.: Diverticulitis of the Cecum and Ascending Colon, Arch. Surg. 83:436, 1961.

3. Miangolarra, C. J.: Diverticulitis of the Right Colon: An Important Surgical Problem, Ann. Surg. 153:861, 1961.

4. Nicholas, E., Jenkins, H. P., and Swenson, S. A.: Discussion, AMA. Arch. Surg. 83:443, 1961.

5. Case, T. C.: Acute Epiploic Appendagitis, Surgery 46:1047, 1959.

6. Lynn, T. E., Dockerty, M. B. and Waugh, J. M.: A Clinicopathologic Study of the Epiploic Appendages, Surg. Gynec. & Obst. 8:423, 1956.

7. Patterson, H. A.: The Management of Cecal Cancer Discovered Unexpectedly at Operation for Acute Appendicitis, Ann. Surg. 143:670, 1956.

8. Rives, J. D.: Discussion, Ann. Surg. 143:680, 1956.

9. Cohn, I.: Personal letter.

10. Cohn, I. and Cotlar, A. M.: Intraperitoneal Kanamycin, Ann. Surg. 155:532, 1962.

HARVARD AND FAMILY DOCTORS

Harvard Medical School intends to start a fellowship training program in family medicine, designed for physicians who have completed at least two years of hospital training after graduation. The program is planned with the intention of strengthening skills in clinical management of common acute and chronic problems and of social and behavioral disturbances, and in preventive medical services for ambulatory patients and liaison with public health resources. It is based on the belief that family medical care should be provided by the physician giving continuous and personal care and that preventive and curative services should be combined. This program, which must of necessity be experimental, represents an important step in seeking answers to the question whether family medicine should continue or disappear. *(From World Med. J. 10:197, 1963.)*

The vaccination of preschool children has been notably successful in the Memphis area—only by persuasion and service and not by police power.

Immunization Status of First-Grade Pupils: Results of a Survey in Memphis*

EUGENE FOWINKLE, M.D., M.P.H. and NOBEL GUTHRIE, M.D., Dr. P.H.,†
Memphis, Tenn.

During 1962, three studies were undertaken by the Memphis and Shelby County Health Department for the purpose of estimating the immunization status of children of this jurisdiction. One of these studies was directed toward four month old infants and another toward two year old children. The study reported here deals with first grade school children. As compared with quota sampling technics where data is collected by door to door survey in randomly selected areas of the city, the method used here is simple and inexpensive. Although results refer only to one age group and may not be applicable to the community as a whole, it is believed that the results of this simple method along with the findings of other simple and inexpensive studies gives a satisfactorily accurate indication of the immunization status of this segment of our children.

Method of Collecting Information

Twenty schools, representing 3,621 first-graders or about one third of the total number entering the first grade, were included in the survey. Twelve predominantly white schools with a total first-grade enrollment of 1,669 and eight negro schools with a total first grade enrollment of 1,952 were selected as representative of the various socio-economic levels.

The general nature of the study was discussed with each school principal and school public health nurse. Questionnaires requesting the following information were distributed by the teacher of each first-grade class:

1. Number of polio injections
2. Age at first polio injection
3. Number of D.P.T. injections
4. Age at first D.P.T. injection
5. Whether or not vaccinated for smallpox
6. Age when vaccinated for smallpox

The questionnaire was included with each child's first six-week period report card with a request that a parent or guardian complete the questionnaire and return it to school the following day with the report card.

Results

Of the 3,621 questionnaires issued, 3,123 were returned completed (81.2% from the nonwhite schools and 92.4% from the white schools).

Except when stated to the contrary, percentages included in the following analyses are based upon the number of pupils for whom information was available. In the bar diagrams this percentage is represented by the top of the bar. It is recognized that an error is inherent in exclusion from the denominator of infants for whom information is not available. A dotted line is inserted in each bar of the diagrams showing what the percentage would be, had the basis of calculation been the entire sample. The true answer is considered to lie somewhere between this dotted line and the top of the bar.

Figure 1 and table 1 present the immunization status of the first-graders as regards polio vaccine. It is observed that 98.3% of the white children and 88.4% of the negro children had received at least one injection, 96.1% of the white and 72.2% of the negroes had received at least two, and 92.3% of the white and 61.7% of the negro children had received at least three injections of polio vaccine.

*Presented at the annual meeting of the Tennessee Public Health Association, October 3, 1962, Nashville, Tenn.

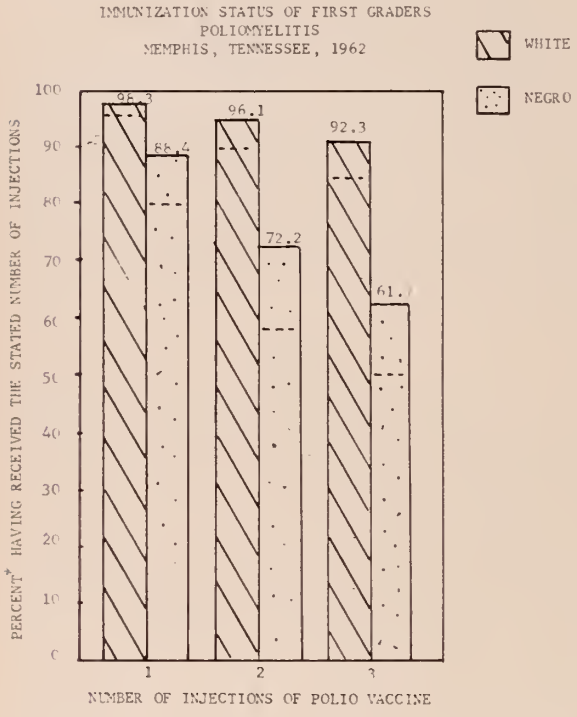
†From the Memphis and Shelby County Health Department, Memphis, Tenn.

Table 1

IMMUNIZATION STATUS OF FIRST-GRADERS
MEMPHIS, TENNESSEE 1962
BY TYPE OF VACCINE AND RACE

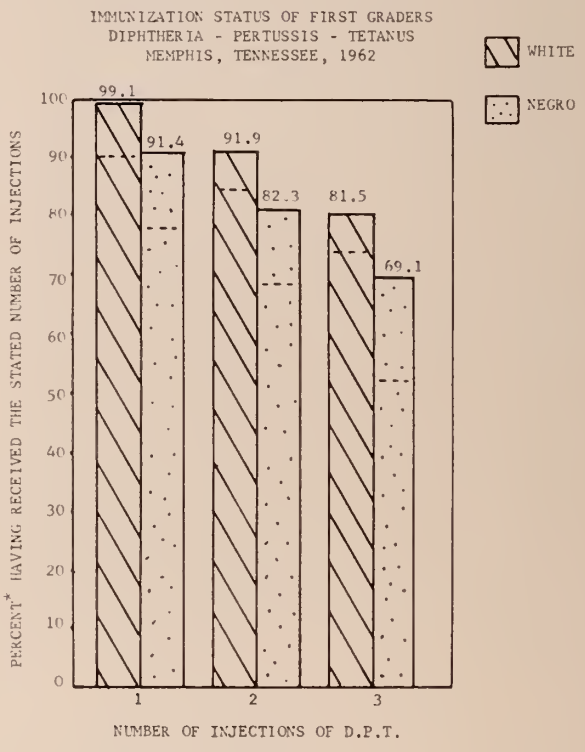
Number of injections or vaccinations	POLIO VACCINE		D.P.T.		SMALLPOX VACCINE	
	White	Negro	White	Negro	White	Negro
0	100.0	100.0	100.0	100.0		
1	98.3	88.4	99.1	91.4	96.6	83.2
2	96.1	72.2	91.9	82.3		
3	92.3	61.7	81.5	69.1		

*Cumulative Percent having received the indicated number of injections or more, based on the number for whom information was available.



*Cumulative percentage of infants having received the stated number of injections or more, based on the number of infants for whom information was available. The dotted line would be the top of each bar if percentages were based on the complete sample, including infants for whom no information was available.

FIG. 1.



* See footnote to Figure I

FIG. 2.

Figure 2 and table 1 present the same type of information for D.P.T. It is seen that 99.1% of the white and 91.4% of the negro children had received at least one D.P.T. injection, 91.9% of the white and 82.3% of the negro children had received at least two, and 81.5% of the white and 69.1% of the negro children had received at least three injections of D.P.T.

Table 1 shows that 96.6% of the white and 83.2% of the negro children had been vaccinated against smallpox.

The average age for beginning polio immunization was 2.6 years for the white and 3.2 years for the negro. The average age for receiving the first D.P.T. injection was 1.1 years for the white and 1.7 years for the negro children. It is interesting to note that the mean ages for receiving smallpox vaccination was the same as for the first injection of D.P.T. in both the white and negro children, 1.1 and 1.7 years respectively.

Summary

It is universally accepted that all children should be immunized against diphtheria, pertussis, tetanus, polio, and smallpox at least by the time they enter school. A simple and reliable method is described for de-

termining to what degree this status has been achieved.

In a study of the immunization status of 3,621 pupils in the first grade of Memphis city schools, the questionnaire method was followed when necessary by telephone calls and home visits. It was found that more than 90% of white first grade pupils had received three DPT injections, three polio injections and smallpox vaccination. These rates for negro children were between 60 and 70% for those having received three polio injections and those having received three DPT injections. However, 83% of negro children had been vaccinated against smallpox. Although the immunization level among negro children leaves much to be desired, it is believed to be sufficiently high to be a major factor in controlling spread of these communicable diseases.

It should be pointed out that none of the immunizations counted in this study were given at school and that the immunization levels reported have been achieved without law or compulsion—only persuasion and service.

ERRATUM (See August Issue)

On Page 312, the fourteenth line of paragraph three, the word "not" was inadvertently omitted. The sentence should read: "Since these treatments are not reportable, and the treatments are *not* given in health departments we have no accurate knowledge of the exact number of persons requiring such treatments."

The author reviews the histologic changes implied in the term leukoplakia. He pleads for a more accurate and scientific diagnosis which will point to either benignity or the possibility of malignant transformation.

ORAL LEUKOPLAKIA: A Study of 420 Tissue Sections*

JAMES F. SMITH, D.D.S., Ph.D., Memphis, Tenn.

Oral white lesions cause considerable diagnostic difficulty for the clinician. Much of the difficulty has arisen because of the many different diagnostic terms used to describe the same lesion. Many fail to appreciate the potential dangerous nature of the oral white lesions. Not all of the difficulty encountered, however, occurs as failure on the part of the clinician to do a biopsy and diagnose these lesions early, since much of the difficulty exists among the pathologists who disagree upon classification and nomenclature of white oral lesions.

Many oral white lesions are not related to epithelial alteration from over-stimulation, but instead are congenital, psychosomatic, infectious or traumatic in nature. Lesions included in this group are, white sponge nevus, lichen planus, white hairy tongue, chemical and drug reactions, and streptococcal and fungal infections. In this paper, however, we are primarily concerned with those white lesions that are considered as epidermal changes in which some overstimulation occurs. It is our desire to seek an acceptable classification for use by the physician, dentist, and pathologist.

Nomenclature

Living cells arranged in sheets and layers do not demonstrate marked tensile strength. Epithelial tissues then must be attached to a strong supporting tissue if they are to retain their normal position. The epithelial cells rest upon connective tissue and are attached to it and separated from it by a modified intercellular substance, the so-called basement membrane. Stratified squamous epithelium can withstand a moderate amount of wear and stimulation, since its primary function is protection of underlying structures. Where greater protection is needed, we see a thickened and hyperkeratinized epithelium, while in other areas less protection is needed and thus we see a thinner epithelial layer with little or no keratin formation. The outermost layer of the skin that is composed of keratin and called the stratum corneum provides a protective barrier against overstimulation and infection. The cells of this layer are flattened and elongated and appear in some areas as scales. Immediately below or adjacent to the stratum corneum is a thin clear zone called the stratum lucidum. This layer may be clearly seen in biopsies removed from the palm of the hand and the sole of the foot. The cells comprising this layer are clear, irregular and closely packed together, and the layer is not apparent in the epithelium of mucous membranes. Immediately beneath the stratum lucidum in protective epithelial areas and beneath the stratum corneum in mucous membrane, is a layer of cells that are irregular spindle shaped cells and contain refractile granules which stain with basic dyes. This layer is usually one to three cells in thickness and is called the stratum granulosum. Beneath the stratum granulosum is a layer of cells, which we call the stratum malpighi and these cells are polygonal in shape and demonstrate intercellular bridges. It is the intercellular bridges or cytoplasmic projections that give rise to the name "prickle cells." The thickness of the stratum malpighi varies in different parts of the body according to the stimuli common to the area. Immediately below the stratum malpighi is the innermost layer of cells that is called the stratum germinativum. These basal cells are columnar in shape with oval nuclei and nuclear membranes that stain

*From the Department of Pathology, University of Tennessee Institute of Pathology, Memphis, Tenn.

deeply. Through maturation the basal cells furnish the cells for the overlying areas.

In summary then, epithelium of the stratified squamous type has as its primary function, the protection of underlying structures and it performs this function by maturation of the cells arising in the basal layer, so that through succeeding steps and layers the basal cells eventually become those cells which produce the stratum corneum. This process of maturation and differentiation may be altered by overstimulation of the outer layer of the epidermis thus producing histopathological cellular changes. (Fig. 1.)

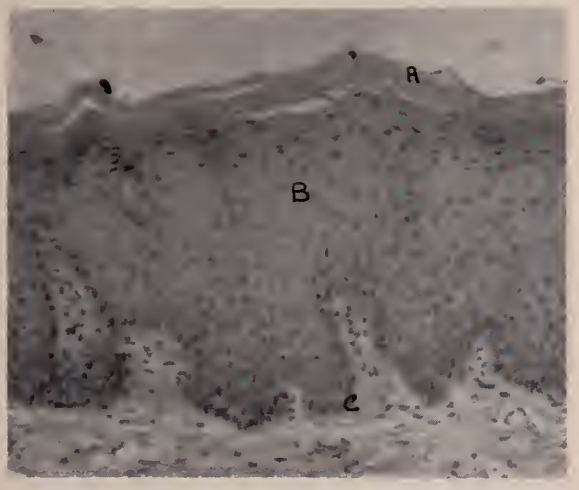


FIG. 1. Squamous epithelium from the buccal mucosa. (A) is the stratum corneum. (B) is the stratum malpighii. (C) is the basal cell layer.

Hyperkeratosis. Different areas in the oral cavity present different degrees of keratin formation upon the surface epithelium.



FIG. 2. Hyperkeratosis. Note the thickening of the keratin layer in this biopsy section removed from the buccal mucosa in an area of chronic irritation.

Hyperkeratosis is defined as an abnormal increase in the thickness of the keratin layer. (Figs. 2 and 3.)



FIG. 3. Hyperkeratosis. Note the thickened layer of keratin in this section removed from oral mucosa. Note also the retention of nuclei in the keratin layer.

Parakeratosis. This may be defined as the retention or persistence of nuclei in the cells of the keratin layer. Parakeratosis in certain areas of the oral cavity cannot be considered as an abnormal finding. If found in areas where this change is not a normal finding, it may represent the acceleration of maturation and differentiation in that nuclei



FIG. 4. Parakeratosis. (A) represents the area of parakeratosis in which the nuclei have been retained in the keratin layer. This is usually due to an increase in the maturation growth rate of the epithelium in which there is insufficient time for all the nuclei to be lost in the keratin layer.

are retained rather than being lost. Another indication that this is possibly a speeding up of the normal cellular maturation and differentiation is the absence of the granular layer seen often in cases of severe parakeratosis. (Fig. 4.)

Acanthosis. The thickness of the stratum malpighi or spinous layer varies in different areas of the oral cavity. Acanthosis is defined as the abnormal thickening of the stratum malpighi and it is not always associated with hyperkeratosis or parakeratosis. Acanthosis is often seen as one of the so-called benign changes of stratified squamous epithelium from excessive stimulation. (Fig. 5.) There may be elongation and blunting



FIG. 5. Acanthosis. Note the thickness of the stratum malpighii which is due to an increased number of cells in this layer. This change may be related to abnormal stimulation of the area.

of the rete pegs and acanthosis is in most instances a reversible change.

Leukedema. This is defined as edema of the prickle cells associated with acanthosis. This condition may resemble so-called leukoplakia grossly and the large edematous cells are clear and pale with nuclei absent in most instances. (Fig. 6.)

Dyskeratosis. Dyskeratosis is defined as a disturbance in the maturation of the cellular layers of the stratified squamous epithelium. Characteristics of dyskeratosis include, pleomorphism in the size and shape of cells and their nuclei, abnormal numbers of cells undergoing mitosis, pleomorphism in the mitotic cells, cytoplasmic inclusions,

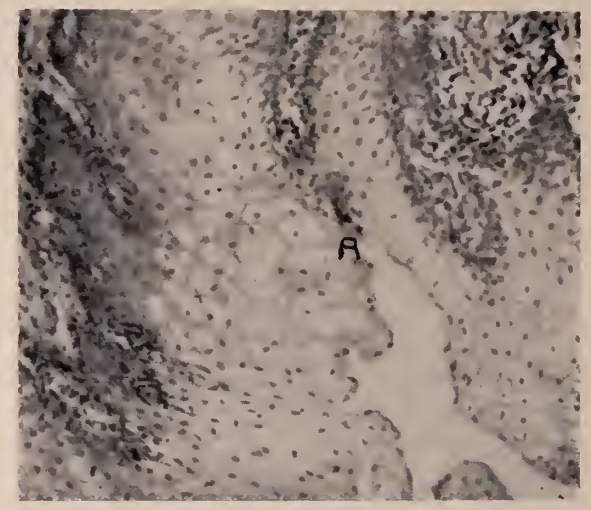


FIG. 6. Leukodema. (A) represents the area of cells undergoing edematous change. This change is also called spongiosis.

hyperchromatism, individual cell keratinization, misplaced keratin formation, loss of polarity of cells and basal layer hyperactivity. In addition to the abnormal changes listed above, there may or may not be present acanthosis, hyperkeratosis and parakeratosis. The changes seen in dyskeratosis are consistent with intraepithelial carcinoma or carcinoma in situ. A distinction must, however, be made between the malignant dyskeratosis and that type of benign dyskeratosis that is seen in other skin lesions, for example, molluscum contagiosum. (Figs. 7, 8, 9, 10 & 11.)

Let us consider for a moment, the term

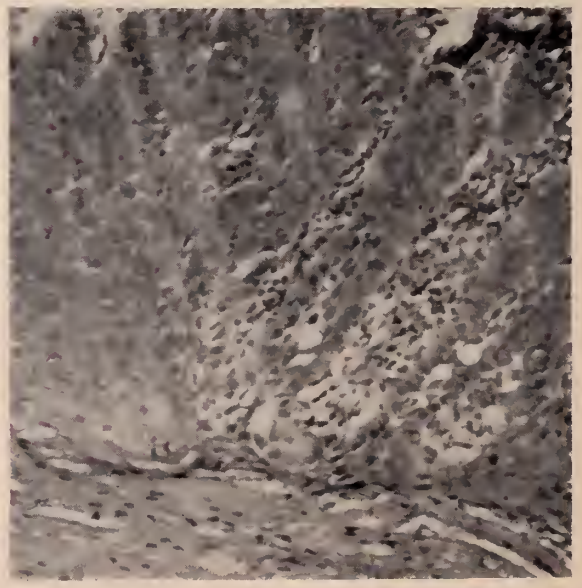


FIG. 7. Dyskeratosis. Note the pleomorphism in the size and shape of cells, the hyperchromatism, loss of polarity and mitotic figures.

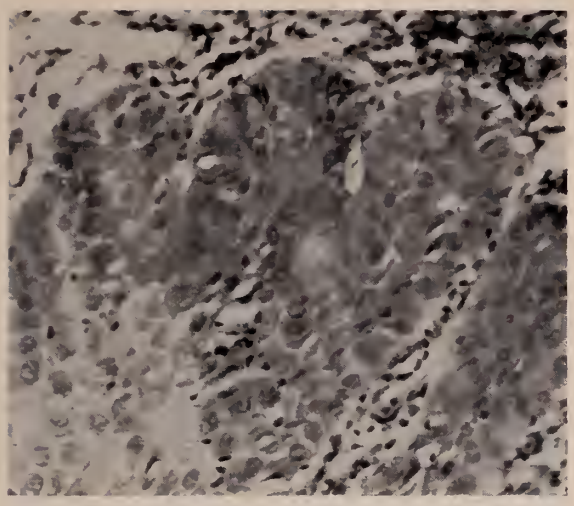


FIG. 8. An enlargement of the epithelium as seen in dyskeratosis. Note the atypical cells and loss of polarity.



FIG. 9. Dyskeratosis. Note the attempt at keratin formation in the deep layers of the epithelium. (A) represents a keratin whorl.

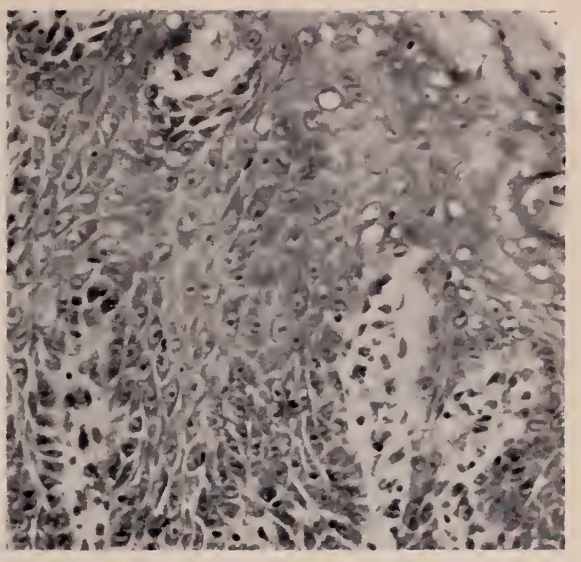


FIG. 10. Dyskeratosis. There is marked pleomorphism demonstrated in the cells in this section.

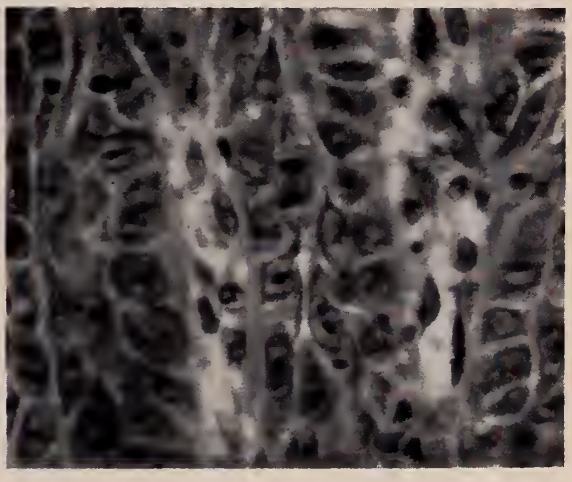


FIG. 11. An enlargement of the cells as seen in a biopsy from the buccal mucosa demonstrating dyskeratosis. Note the pleomorphism in the size and shape of cells and their nuclei and the mitotic figures.

"premalignancy." This is a most unfortunate term for two reasons: the first being, that "premalignancy" does not indicate as the term implies that a lesion with the characteristics of carcinoma in situ or dyskeratosis will always progress to a malignant lesion. Many dyskeratotic lesions have remained quiescent for months or years or indefinite periods of time without malignant transformation. The second reason is that different investigators have various prerequisites for a lesion before it can be called "premalignant" and these do not always agree. We do know, however, that most pathologists when using the term "premalignancy" in mucosal lesions consider the changes that are seen in dyskeratosis, but as yet have not become invasive.

Many ideas are presented in the medical and dental literature concerning the use of the term "premalignancy" and these vary from hyperkeratosis, acanthosis and epithelial hyperplasia to the presence of dyskeratosis.

Martin and associates[1] and others have emphasized the presence of inflammatory infiltrate as a typical feature in cases of oral "premalignancy." This, however, is not always a constant finding.

Cahn, Blake and Eisenbud[2] have pre-

sented some interesting findings concerning the basement membrane and its reaction to PAS stain in various epithelial lesions. They think there is a substance, possibly enzymatic in nature, which is elaborated by malignant epithelial cells and possibly potentially malignant cells, that dissolve the PAS positive material in the basement membrane. This being true, it is tentatively possible with the PAS stain to distinguish potentially malignant epithelium from benign epithelium and thus to separate benign white lesions from potentially malignant lesions.

Leukoplakia. This term simply means a white patch which often occurs on the mucous membrane of the oral cavity. We have seen a number of instances in which oral carcinoma has developed in association with the white plaque. This suggests then that the white patch may be a precursor to oral carcinoma. Silvermann and Ware[3] state that an innocent appearing white patch may represent an early carcinoma.

Burket[4] states that the gross appearance of a lesion does not furnish a basis for positive diagnosis and that histologically simple looking plaques may prove to be malignant. He further states that biopsy studies are essential to determine if dyskeratotic changes are to be diagnosed and that the potential "precancerous" nature of hyperkeratosis with dyskeratosis and inflammation emphasize the importance of a thorough knowledge of this disease.

Castigliano[1] states that leukoplakia is "precancerous" and that verrucous hyperplasia should be regarded as precancerous. This author also expresses the opinion that the appearance of leukoplakia is quite variable and its clinical manifestations are controlled by the type of stimuli which produce the changes. He states that leukoplakia is a "precancerous" lesion especially if it is associated with syphilis.

Glickman[5] states that leukoplakia is a clinical term descriptive of the whitish appearance produced by hyperkeratosis of the epithelium. He states that the significance of leukoplakia lies in the fact that in some cases it provides a favorable soil for the development of epidermoid carcinoma, and that the benign lesions cannot be differentiated from those undergoing malignant transformation except by microscopic examination. Glickman further says that the difference between benign lesions and those undergoing malignant change is based upon the presence of dysplastic changes in the epithelium.

Boyle and Gorlin[6] state that white lesions of oral mucosa include such lesions as pachyderma oralis which is associated with chronic irritation and microscopically presents parakeratosis, hyperkeratosis and acanthosis. These authors say that microscopically leukoplakia differs from pachyderma oralis by the presence of dyskeratosis in the stratum spinosum.

Thoma and Goldman[7] likewise state that pachyderma oralis is represented by a focal keratosis with no dyskeratosis of the epithelium but resembles leukoplakia clinically. While leukoplakia is defined as a lesion which demonstrates dyskeratotic changes in the squamous epithelium.

Szanto and Saphir[8] state that leukoplakia is regarded by many as a "precancerous" condition and that malignant changes developing in the leukoplakia are diagnosed only by examination of a biopsy specimen. These authors state further that there are two histologic types of leukoplakia, which are: marked keratosis, which is predominently epithelial hyperplasia, with the second type of leukoplasia being hyperplasia of the prickle cell layer, minimal or absent cornification, hyperchromatic nuclei in the basal cells, and mitotic figures. These authors then state that transformation from the hyperkeratotic to the hyperplastic type is suspicious of early squamous cell carcinoma.

Tiecke[9] defines leukoplakia as a white patch that is a "premalignant" lesion. He further states that clinically it may be difficult to differentiate from focal keratosis, and that the diagnostic and prominent change in leukoplakia is dyskeratosis of the epithelium.

Shafer and associates[10] define leukoplakia as a white patch or plaque occurring on the surface of mucous membranes. These authors describe the microscopic features of leukoplakia as hyperkeratosis, acanthosis, and the most important change being dyskeratosis or abnormal maturation of the epithelial cells. They then consider leuko-

plakia under the "premalignant" lesions of epithelial tissue origin.

Bernier[11] uses the terminology pachyderma oralis to indicate a lesion which presents varying amounts of keratin in addition to hyperplasia of the stratified squamous epithelium, and in some cases a prominent stratum granulosum and inflammatory cell infiltrate. He further states that the point of greatest importance is the absence of dyskeratosis. This author further discusses leukoplakia as having the contradistinction to pachyderma oralis in that there is the histopathological change of dyskeratosis present. The author defines dyskeratosis as a disturbance in the orderly maturation of the stratified squamous epithelium.

Bhaskar[12] defines leukoplakia as a "premalignant" lesion demonstrating dyskeratosis while the benign white plaque is defined as pachyderma oralis, which is characterized by a thickened layer of keratin as well as parakeratosis and acanthosis.

Clinical Study

The following is a summary of the results found in a study of some 420 cases involving white plaques of the oral cavity. These are discussed as clinical leukoplakia and not from the microscopic lesion. (Table 1.)

Age and Sex. Most reports state that leukoplakia is more common in men than in women and that it is found in the older age group, that is 40 years or up. In the present study it was found that clinical leukoplakia occurred more often in males than in females, the ratio being 10 to 1. The average age group for the occurrence of clinical leukoplakia in the male was 57 years, while in the female the average age was 53 years. The white to negro ratio was 4 to 1.

Location. Leukoplakia occurs at any site in the oral cavity, although certain areas seem to present clinical leukoplakia more often than others. Many patients showed multiple areas of involvement rather than a single area. The most common site for clinical leukoplakia is the buccal mucosa followed by retromolar mucosa, alveolar mucosa, gingiva, tongue, hard and soft palate, floor of the mouth and the lip. The high incidence of the occurrence of clinical leukoplakia on the buccal mucosa in this study is thought to be due to the large number of snuff users and tobacco chewers in the group among both men and women.

Histologic Criteria. It has long been a recognized fact that it is impossible to correlate the histologic changes with the clinical aspects of clinical leukoplakia. Many papers have been written that emphasize certain factors considered necessary for a diagnosis of "premalignancy." Some of these include white leathery plaques, fissured plaques, plaques with poorly defined margins, and white plaques with erythemic bases. However, it can be said here that there is no possible way of predicting if a lesion will present potentially malignant changes by only a visual examination, since histologic findings do not always concur with gross visual diagnosis. Thus, it is unwise to attempt to determine by visual examination only whether or not a white plaque requires biopsy, since often the most innocuous appearing lesion may present histologic changes consistent with potential malignancy.

The literature contains a number of terms used to describe clinical leukoplakia. These include leukokeratosis, hyperkeratosis, keratosis, focal keratosis, pachyderma oralis and others. The most important histologic criteria for a diagnosis of white plaques is the presence of dyskeratosis. If dyskeratosis is present the lesion must definitely be con-

Table 1

Oral White Lesions
A Study of 420 Tissue Sections

Male	Female	White	Negro	Male Average Age	Female Average Age	Location	Benign Changes	Dyskeratosis	Tobacco users
379	41	340	80	57 yrs.	53 yrs.	Buccal mucosa	381	39	362
						Retromolar mucosa			
						Alveolus			
						Gingiva			
						Tongue			
						Palate			

sidered as a potentially dangerous lesion with the possibility of malignant transformation. The term leukoplakia as a microscopic diagnostic term should be discontinued, though this term is firmly entrenched in the past and present medical and dental literature and there seems very little possibility of discontinuing its use.[13]

In the present study, over 90% of the lesions considered, consisted of benign and innocuous lesions characterized only by hyperkeratosis, acanthosis, and parakeratosis.

The etiology of leukoplakia cannot be determined since in a majority of instances the causative factor cannot be found, though it is thought that possibly heavy smoking, the use of chewing tobacco and snuff, chronic irritation from broken teeth or dentures and systemic disease may play an important role in the oral white plaque.

Conclusion

There seems to be only one practical way to solve the ever present problem of diagnosis of white plaques of the oral cavity. The use of the term leukoplakia should be confined only to a clinical description of the lesion before biopsy findings are available. If the term leukoplakia is used only as a clinical description there is then no histologic connotation, thus eliminating confusion as to what is meant by the clinician. A diagnosis of hyperkeratosis indicating the benign changes and the use of dyskeratosis to identify those histologic changes considered as potentially dangerous and/or malignant would eliminate the confusion existing at the present time. Thus, if the clinician wishes to use the term leukoplakia it should be used with further histologic description, such as leukoplakia with dyskeratosis or leukoplakia without dyskeratosis.

The teaching of this terminology by medical and dental educators would help to eventually eliminate some of the present confusion concerning these lesions. Until the great number of terms used to describe the same lesion are discarded, confusion will continue to exist.

References

1. Martin, H. E., Munster, H., and Sugarbaker, E. D.: Cancer of the Tongue, Arch. Surg. 41:888, 1940.

2. Cahn, L. R., Blake, M. N. and Eisenbud, L.: Histochemical Analysis of White Lesions of the Mouth, Oral Surg. 14: 1961.

3. Silverman, S. and Ware, William: Comparisons of Histologic, Cytologic, and Clinical Findings in Intraoral Leukoplakia and Associated Carcinoma, Oral Surg. 13:412, 1960.

4. Burket, L. W.: Oral Medicine: Diagnosis and Treatment. Philadelphia and Montreal, J. B. Lippincott Co., 1957.

5. Robbins, S. L.: A Textbook of Pathology, Philadelphia. W. B. Saunders Co.

6. Gorlin, R. J.: Bowen's Disease of the Mucous Membrane of the Mouth. Oral Surg. 3/35, 1950.

7. Thoma, K. H. and Goldman, H. M.: Oral Pathology. St. Louis, C. V. Mosby Co., 1960.

8. Saphir, O.: A Text on Systemic Pathology: Vol. 1. New York and London, Grune and Stratton, 1958.

9. Tiecke, R. W., Stuteville, O. H., and Calandra, J. C.: Pathologic Physiology of Oral Disease. St. Louis, C. V. Mosby Co., 1959.

10. Shafer, W. G. and Hine, M. K., and Levy, B. M.: A Textbook of Oral Pathology. Philadelphia, W. B. Saunders Co., 1958.

11. Bernier, J. L.: The Management of Oral Disease. St. Louis, C. V. Mosby Co., 1959.

12. Bhaskar, S. N.: Synopsis of Oral Pathology. St. Louis, C. V. Mosby Co., 1961.

13. Ackerman, L. V. and del Regato, J. A.: Cancer: Diagnosis, Treatment and Prognosis. St. Louis, C. V. Mosby Co., 1947.

CLINICAL NOTES FROM THE TENNESSEE HEART ASSOCIATION

TREATMENT OF RIGHT VENTRICULAR FAILURE (COR PULMONALE)

CRAWFORD W. ADAMS, M.D.,*
Nashville, Tenn.

Failure of the right ventricle is rarely isolated. Abnormal hemodynamic factors found with cor pulmonale increase to some extent the work of the left as well as the right ventricle. However, events such as increased pulmonary blood flow, increased pulmonary vascular resistance, and arterial hypoxemia, place a greater amount of work upon the right side of the heart and are responsible for the development of ventricular hypertrophy, pulmonary hypertension, and right ventricular failure. (Fig. 1.)

Right ventricular failure may be either acute, or chronic. The clinical picture is variable, and the treatment depends upon the underlying disease. Acute right ventricular failure usually follows a massive pulmonary embolus and the cardiac failure is frequently overshadowed by the clinical manifestations of peripheral circulatory collapse. Although the outlook is unfavorable, initial therapy consists of the intravenous administration of atropine, papaverine or tolazoline (Priscoline) in an effort to relieve smooth muscle spasm, and morphine intravenously to control pain. Routine supportive measures should be instituted until heroic embolectomy can be performed.

The success of treatment for chronic right ventricular failure primarily depends upon the response of the underlying pulmonary insufficiency to therapy. General management of chronic right ventricular failure consists of rest or restricted activity which is based upon the extent of underlying pulmonary disease and the overall status of the myocardium. A low-sodium diet consisting of less than 2.0 Gm. of sodium daily is usually required to adequately control the edematous state. If renal output is adequate, a high potassium diet tends to stabilize the cardiac status and prevent the arrhythmias frequently found with digitalis and diuretic administration. Although oxygen therapy is beneficial in the anoxic type of pulmonary disease in which the entry of air into the pulmonary alveoli is obstructed, oxygen may be hazardous if utilized in advanced obstructive emphysema with carbon dioxide retention. If oxygen is required for

*From the Department of Medicine, Vanderbilt University School of Medicine, Nashville, Tenn.

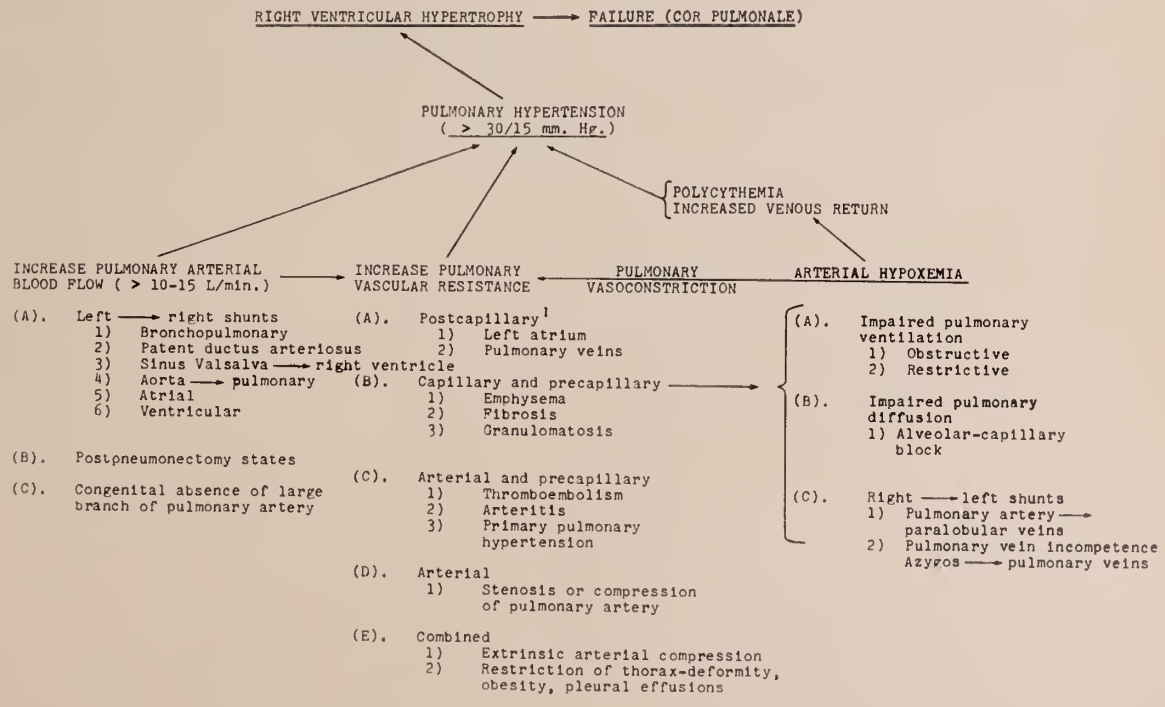


FIG. 1.

severe obstructive emphysema, the administration should consist of small, intermittent flows of low concentration since the respiratory center depends upon hypoxemia rather than carbon dioxide for stimulation.

Specific management of chronic right ventricular failure consists of control of infection, relief of bronchospasm, encouragement of diuresis, improvement in pulmonary alveolar-capillary diffusion, prevention of thromboembolism, and relief of chronic passive congestion. In the presence of bronchopulmonary infection, antibiotics are of considerable value, and bronchodilators are indicated whenever bronchitis is complicated by bronchospasm. Aminophylline is effective in relieving bronchospasm and improves the overall cardiac status by increasing cardiac output and enhances renal diuresis by augmenting glomerular flow. Mercurial diuretics should be used with caution in the treatment of right ventricular failure as hypokalemia and cardiac arrhythmias frequently follow prolonged diuretic therapy.[2] With impairment of alveolar-capillary diffusion, the use of corticosteroid hormones should be considered. Anticoagulant therapy is usually reserved for pulmonary thromboembolic complications. If there is cyanosis and polycythemia with a hematocrit greater than 50 to 55 mm. temporary relief may be achieved by small 250 cc. phlebotomies.

Digitalis is of value in the treatment of right ventricular failure, and there is little danger of toxicity if preparations designed for rapid elimination are cautiously administered. Digitalization is followed by an increase in right ventricular output and a reduction of the right ventricular diastolic pressure. The response to digitalization however, depends upon the degree of pulmonary insufficiency present, and as pulmonary function improves, the beneficial effects of digitalization become apparent. If pulmonary insufficiency is ignored and the response to digitalization is poor, the dosage of digitalis is then usually increased which may account for the frequency in which we observe digitalis toxicity, hypokalemia, or cardiac arrhythmias in right ventricular failure. A general outline of treatment of right ventricular failure is summarized in table 1.

Table 1

TREATMENT OF
RIGHT VENTRICULAR FAILURE

1) Relief of pulmonary insufficiency
2) Rest-restrict activity.
3) Diet-low Na^+, high K^+ (with renal competence)
4) Oxygen-in anoxic type of pulmonary disease in which entry of O_2 into alveoli is obstructed. Caution-small, intermittent, low concenrations
5) Phlebotomy-multiple, small (250 cc.) and/or P_{32}-with PCV over 50 to 55
6) Drugs-aminophylline, diuretics, digitalis.

References

1. Galland, F.: Classification of Pulmonary Hypertension, Am. J. Cardiol. 7:471, 1961.

2. Adams, C. W.: Hazards of Antihypertensive and Diuretic Therapy: Hypokalemia and Hyperkalemia, J. Tenn. M. Assoc. 56:175, 1963.

STAFF CONFERENCE

Tennessee Psychiatric Hospital and Institute*

Behavior Problem

DR. G. H. AIVAZIAN: The family physician is often consulted for behavior problems, which present difficulties in diagnosis and management, especially in younger members of a family. Certain questions frequently arise: is this "misbehavior" or a "psychiatric case"; should the patient be referred to a psychiatrist or not; is hospitalization necessary; what are the determinants of such behavior, etc.

The patient selected for presentation this morning represents one of the commonly encountered behavior patterns and will help us explore questions relating to diagnosis, causation and treatment.

Dr. Crupie will present a summary of the case history and mental status.

DR. JOSEPH E. CRUPIE: The patient was brought to the hospital by two of her older brothers, one of whom was the informant. Although he appeared somewhat resentful of having to assume major responsibility for her hospitalization, he was cooperative in giving information.

Three years ago this patient's mother had a heart attack and was hospitalized for two months before her death, the patient remaining at her bedside during this period. Following the mother's death the behavior ultimately leading to the patient's hospitalization began, gradually increasing in frequency and intensity. The mother was survived by three sons, the husband, and the patient who was the youngest child. A fourth brother of the patient died during the same year as the mother, also of a heart attack. All of the boys had left home in their middle teens and none have been close to the patient.

The father is described as a man of little education, high-tempered and frequently profane, "withdrawn," and for 20 years he has not left the rural community where he has always lived. The mother is remembered as "easygoing," affectionate, seeming not to mind the father's outbursts. The patient and her mother were extremely close and slept together until the mother's last illness. Mention of sex was taboo in the home and according to the brother, the patient was given no information on the subject.

The father owned a small business and provided adequately for his family in a rather frugal fashion. Mother attended church and took the children but the father never accompanied them. No details of the patient's birth and early development were known by her brother. She attended public school but had few contacts with her classmates, preferring to stay at home helping her mother, who particularly discouraged any interest in boys. After the mother's death the patient's father urged her to go to business school or get a job but she did neither. She stayed at home, visiting an aunt or her brothers in a nearby town several days each week. While on these visits the patient began telephoning boys and became promiscuous. She became pregnant early this year but miscarried during the fourth month. The patient feels that her family does not care for her and that her brothers are trying to exclude her and get their father's property.

This patient has socialized well on the ward since her admission a few days ago and claims that she likes it here. She appears to be in good health and she is neat and clean. She is dressed in a man's shirt and short shorts. She is rather obese. Her speech is rapid and she frequently seeks verbal approval for what she says. She is cooperative but seems rather stiff and unrelaxed. There is home hyperactivity manifested by her flashing looks and the quick movements of her hands.

This patient shows easy distractability and shifts very easily from one topic of conversation to another. There seems to be no real blocking; however, she is often unsure of her answer and follows her remarks with "I don't know."

The patient's emotional responses are poor with definite flattening of affect. She

*From the Department of Psychiatry, University of Tennessee College of Medicine and the Tennessee Psychiatric Hospital and Institute, Memphis, Tennessee.

smiles inappropriately and she describes her actions blandly. She is naively boastful about her good name and her family standing in the community.

A long interview with this patient leaves the examiner with the feeling that there is an air of loose uncertainty concerning her life story. She spoke of loneliness, of telephone calls, of boys coming to see her late at night, of taking care of a ninety-one year old invalid. She also spoke of her brother calling her and telling her to be in the County Judge's office on Friday morning, July 5, 1963. Yet, she could not give any clear information concerning the reasons which brought her to the judge's office or this hospital except for the telephone conversations mentioned previously. She often contradicts herself without in the least realizing it.

The patient is well oriented as to time, place and person. There seems to be no memory deficit. Her general knowledge is fair, but not indicative of a twelfth grade and higher level of education that she claims to have obtained. She has the logic and judgment of a much younger person. She is rather naive, and her intellectual level appears to be below average. The patient's outlook for the future is unrealistic. She has big plans, a job, independence, higher moral standards, church affiliation, a good husband and a happy life. She will obtain these by "getting well." She will get well by "cooperating to the utmost degree with her treatment here at the hospital."

The results of psychological examination suggest marked immaturity and egocentricity; emotional lability and impulsivity; low anxiety tolerance; irresponsible, antisocial attitudes with a facade of reformed and conforming behavior; shallow interpersonal relationships; dull normal intelligence. There is evidence of organic damage.

Excerpts from Interview with Patient

DR. AIVAZIAN: Would you like to tell us how you happened to come here?

PATIENT: I did s o m e t h i n g that I shouldn't. I had been a nuisance to the University in my hometown. I would call the boys there in different fraternities. I would worry them. At the time I didn't mean to worry them.

DR. AIVAZIAN: How would you worry the boys?

PATIENT: I would call and discuss everything. You see, three years ago my mother died. My father and I weren't very close so when she died I didn't have anyone to turn to. There were other girls involved but I was the only one that got into trouble.

DR. AIVAZIAN: What did you talk about?

PATIENT: Money. They would say, "We can help you financially or any other way if you will just let us." I would never accept this. It went on and on until I got picked up. Let's face it, doctor, there's no reason to lie about it.

DR. AIVAZIAN: Isn't it unusual for a girl to call a boy on the phone and discuss financial matters?

PATIENT: Other matters were discussed. It included everything you might think of. I shouldn't have been calling. We have a lot family problems.

DR. AIVAZIAN: Family problems?

PATIENT: Mother died; father and I weren't close. He doesn't show his love. The lady who was taking care of the woman next door got sick and had to come down here to the TB hospital. Someone had to take care of her. I took the responsibility of that, in taking care of her and daddy. I was very independent then. I made fifty cents a day and would buy all my clothes. I would buy things and show my brothers that I had bought it myself. I want to cooperate and go home and live a normal life.

DR. AIVAZIAN: Normal life?

PATIENT: Don't you think it's abnormal to call fraternity houses?

DR. AIVAZIAN: Do you?

PATIENT: It made me feel secure. I was lonesome like I told you. I couldn't go to my daddy and sit down and talk to him like other girls. I'm an only girl. I have three brothers. It seems like the boys always come first, I come last. I want to be close to my daddy.

DR. AIVAZIAN: Can you tell us more about your parents?

PATIENT: My mother and I looked alike. Everyone loved my mother. She would do

From the Executive Director

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Highlights of the Meeting of the Board of Trustees

Emergency Medical Identification Symbol



● This is the universal emergency medical identification symbol devised by the AMA. The person who displays it carries upon his person information which should be known to physicians or to anyone helping him during an accident or sudden illness. The symbol means: "Look for medical information that can protect life." The American Medical Association designed this symbol to be a universal sign, recognized by all who might perform first aid, indicating the presence of information important to the life and health of the wearer. It is offered to all who make or distribute identification cards or medical emergency signal devices. The symbol may be displayed on a wristlet, an anklet, a medallion around the neck or elsewhere. The symbol will be a sign that there are vital medical facts on a personal health information card in the bearers purse or wallet or on an alerting device.

County Medical Society Members Please Note

● An amendment to the By-Laws, adopted by the House of Delegates at the Annual Meeting on April 9th, makes it binding upon the County Medical Societies to submit their annual reports to the Council of TMA in order that the county society delegates can be seated in the House. The amendment adopted specifies that delegates of county medical societies will not be entitled to be seated in the House if the report is not submitted to the Council by the respective medical society. The Secretary of each county society has been forwarded a copy of this amendment with the request that it be read before an official meeting of the society in order that all members may be familiar with the amendment to the By-Laws of the Tennessee Medical Association

Kerr-Mills Is Working

● At the beginning of 1963, there were twenty-five states with medical assistance to the aged (MAA) programs operating. Of that number, fifteen have amended their programs to make more aged persons eligible. (Tennessee has broadened its program as of July 1.)

Thirteen states have also increased the benefits available under MAA while one state has cut back on benefits. All fifty states plus Guam, the District of Columbia, Puerto Rico and Virgin Islands have programs of old age assistance under the Kerr-Mills Law. MAA programs are working and functioning in: Alabama, Arkansas, California, Connecticut, District of Columbia, Florida, Guam, Hawaii, Idaho, Illinois, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, North Car-

olina, North Dakota, Oklahoma, Oregon, Pennsylvania, Puerto Rico, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virgin Islands, Washington, West Virginia and Wyoming.

National Federation of Independent Business Shows Opposition to Medicare

● Opposition among the nation's independent business proprietors to the principle of medicare financed through social security is stiffening, according to the most recent poll of the membership of the National Federation of Independent Business. In balloting conducted in all fifty states in April, 83% of the small businessmen expressed opposition, and 15% favored the King-Anderson Bill now before Congress, with 2% holding no opinion. One year ago, only 77% of the nation's independent entrepreneurs were opposed.

Recent AMA Decision Affecting Ethics

● At the annual meeting of the House of Delegates of the American Medical Association last June in Atlantic City, the AMA reached a decision that "it is unethical for a physician to have a financial interest in a drug repackaging company." Action at Atlantic City made no provision for stock and ownership disposal terms, nor was a time limit imposed upon doctors who purchase interest in repackaging and relabeling firms.

The other edicts in ethics permit physician participation by ownership of economic interests in health related activities. Ophthalmologists may ethically dispense glasses and all MDs are free to own pharmacies, provided there is no exploitation of the patient, and stock in pharmaceutical companies they do not personally control.

Professional Associations

● The Internal Revenue Service has just announced that it will not issue any rulings on the tax status of professional associations, of the kind authorized by the various states, until amendments of the regulations have been issued. These amendments will establish criteria that will apply to cases "across the board." Twenty-eight states including Tennessee have now enacted statutes authorizing the formation of professional associations taxable as corporations.

Insurance Company Benefits Take Jump

● In 1962, insurance companies paid out in Tennessee $67,349,000 in health insurance benefits compared to $60,762,000 in 1961. This is a healthy 10.8% increase.

Tennessee Will Submit Statement to Congressional Committee

● The House Ways and Means Committee plans to hold hearings on the controversial King-Anderson Bill (H.R. 3920) after labor day. The Tennessee Medical Association has been alerted to file a statement before the committee. Preparation of the material has been completed and TMA will file a statement in opposition to H.R. 3920 at such time when the committee begins hearings on the proposed bill.

Many Rate Careers In Medicine Best

● Medicine topped all other professions in a recent gallop poll to determine what the public believes are the best fields for young people to enter. Respondents in the nationwide survey were asked which of nine professions they would first recommend to a young man seeking a career.

Of the respondents, 23 percent listed medicine as the "best" profession, while 18 percent favored engineering and 12 percent preferred teaching. Thirty-six percent were divided between the ministry, government service, law, business, dentistry, banking and "other."

Medical Quackery

● The Second National Congress on Medical Quackery will be held October 25-26 in Washington. It will be sponsored jointly by the AMA and the Food and Drug Administration. Objectives of the Congress will be to bring together all major American groups concerned with efforts to safeguard the public against useless cures, mechanical gadgets, food fads and other quack devices and worthless treatment. The meeting will seek to determine why the public is vulnerable to quackery and to determine what is needed in health education to help the public protect itself against health charlatans.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

Dr. Edward Annis Visits Nashville

● Dr. Edward R. Annis, president of the American Medical Association, gave the commencement address at David Lipscomb College in Nashville on August 17. On the previous day, Dr. Annis addressed the Kiwanis Club, was interviewed on WLAC Radio's "Focus" program, and was interviewed by WSM-TV and WLAC-TV as well as the Nashville newspapers.

In reviewing Tennessee's Medical Assistance for the Aged program, Dr. Annis said it was his opinion that "it is to the credit of the legislature and the governor that they did not initiate a spend-thrift program, but have proceeded cautiously. In following this course, they have protected the taxpayers' earnings and at the same time have done an increasingly better job in providing for the state's needy."

—0—

Rural Health Conference October 9

● Final arrangements have been made for the first annual Rural Health Conference to be held in Knoxville, Wednesday, October 9. Jointly sponsored by the Tennessee Medical Association, the Tennessee Farm Bureau Federation, and the University of Tennessee Agricultural Extension Service, the conference will have a program of outstanding speakers. Topics to be discussed will include Community Health Services, Radiation Effect on Farm Animals and Products, and Current National Legislation.

Every Tennessee physician is invited to attend the one-day affair which will be held at the Andrew Johnson Hotel beginning at 9:30 a.m. and adjourning at 3:30 p.m. The Tennessee Medical Association will have the conferees as their guests for a luncheon.

—0—

Sabin on Sunday October 6th

● County medical societies throughout the state will begin the first dose of the Sabin Oral Polio vaccine on Sunday, October 6. Several thousand Tennesseans will receive the vaccine through the efforts of 16 medical societies that have announced starting dates for the program. Several other societies are arranging plans for implementing the program and will announce dates in the near future.

Most of the 16 societies will utilize the same dates as previously announced by the Nashville Academy of Medicine. They are: October 6, November 3 and December 8.

County societies conducting programs in addition to Nashville are: Montgomery, Robertson, Humphreys, Williamson, Maury, Giles, Lincoln, Franklin, Coffee, Wilson, Jackson, Bradley, Roane-Anderson, Monroe, and Knox.

—0—

Hearings Expected On King-Anderson

● The House Ways and Means Committee is expected to hold hearings on H.R. 3920 (King-Anderson Bill) soon after Labor Day. The Tennessee Medical Association will submit testimony to the committee in opposition to the legislation.

Newspapers are certain to contain many articles in regard

to the legislation when the hearings are conducted. It is the responsibility of every physician in our state to inform his or her patients of what this political scheme will mean to them as well as to the free practice of medicine in our country.

Operation Hometown is a program designed to aid in educating the public. If you have not been contacted concerning your part in Operation Hometown, ask your county medical society president about it, or write to the TMA Public Service Director for full information and materials explaining the legislation and the true facts concerning health care for the aged.



Woman's Auxiliary Receives Award

● The Ethel Gastineau Trophy, given to the state auxiliary making the most outstanding efforts in the AMA-ERF program, was awarded to two state groups this year—the Woman's Auxiliary to the Tennessee Medical Association and the Woman's Auxiliary to the Ohio State Medical Association.

Shown (left to right) at the 40th annual convention of the Woman's Auxiliary to the AMA, Atlantic City, are Tennessee president Mrs. W. E. Van Order; Mrs. Edward Bauman, Warren, Ohio; Mrs. Erle E. Wilkinson, Tennessee Auxiliary AMA-ERF chairman; and Mrs. Frank Gastineau, Indianapolis, Indiana, a past-president of WA-AMA and trophy donor.

anything for a person she could do. My brothers and father were different. They were snobbish. They wouldn't like that. Last year there was a boy in the community who was going to the hospital and I took my money and bought him pajamas. They didn't like the idea. I was helping someone else.

I told my mother everything. Up until the time she died, I slept with my mother.

DR. AIVAZIAN: Who wanted this, you or she?

PATIENT: She did. She slept with her arm around me. My mother loved me I know. She would tell me she did. My daddy never said he loved me.

DR. AIVAZIAN: Do you have any friends?

PATIENT: Not a lot of friends, no . . . you know, I'm really embarrassed.

DR. AIVAZIAN: Why?

PATIENT: Just think, I'm 25 years old and my friends have all done so much better than I. I have one friend who is married to a doctor. Let's face it; I'm fat and I hate being fat more than anything in the world. I feel left out because I'm fat.

DR. AIVAZIAN: What does your family think of you?

PATIENT: What does your family think of you? You're a successful person, I'm not.

DR. AIVAZIAN: It would help us to know what your family thinks of you.

PATIENT: My family loves me in their own way but they don't show it. They visit my father but they don't visit me. They don't even stop to say, "Hi, how are you doing?"

DR. AIVAZIAN: What are your plans for the immediate future?

PATIENT: I won't leave the hospital until I'm ready to go. I want to cooperate. I think that by talking this out, by my doctor talking to my family, that when I go home they will know that I want to be grown up. Yes, I'm physically mature but not mentally. When I go home I want them to treat me like I'm grown up. Up until three years ago they did treat me like I was grown because my mother would tell my brothers what was what. One of my brothers that lived in my hometown would come to my house and hit me around. I have had to keep all of this inside me.

DR. AIVAZIAN: Why would your brother come to your house and hit you?

PATIENT: He wanted money. I told him I was sick and tired of my daddy giving him money and he should be giving it to me.

DR. AIVAZIAN: If you had just one wish, what would you ask for?

PATIENT: I suppose Dr. Crupie would say to go home. No. I'm really not interested in going home. I would say to be independent, out on my own and work my way through school. I want to be a nurse. I don't feel I could do this because my grades weren't that good in high school.

DR. AIVAZIAN: Tell us what you mean by independent?

PATIENT: When I was making fifty cents a day. It wasn't much but it made me feel proud. I could buy whatever I wanted. I would buy shorts or whatever I wanted to and take them and show them to my brothers and it made them feel proud; I know it did. If I was independent I wouldn't have to ask my daddy to buy me a car. I could do it myself. If a person is independent, they learn to get along with other people. I'm really not interested in going home.

Discussion Following Interview

DR. AIVAZIAN: Dr. Stewart, do you, as a general practitioner, see a psychiatric problem here?

DR. STEWART: Yes. This woman has unrealistic ideas about herself, her family and society. Her behavior has been impulsive, often reflecting poor logic. During the interview we had ample evidence of disturbed thinking. She so frequently contradicted herself.

DR. SKINNER: I believe she has a psychiatric problem manifested as antisocial behavior of several years duration. Her home environment, poor family relationships, and her feelings of unworthiness and inadequacy, have been contributing causative factors. Perhaps in a hospital of this type she might begin to relate with other people. That in itself might be of some benefit to her.

DR. DAVIDSON: It is very evident that this girl has a serious problem. Consider-

able immaturity, childish phantasies, indecision, mixed feelings such as, like and dislike for male members of the family. She has been very easily carried away by her childish wishes and her actions have often been impulsive. The interview, I believe, has amply reinforced and supported the history. The behavior pattern is that of antisocial behavior.

DR. CARPENTER: This patient seems to have limited intellectual capacity. In listening to her I was impressed with the rather marked thought disturbance, especially vagueness, autistic thinking and ideas of reference, which are indicative of schizophrenia. I think this girl has a very long way to go in adjusting to the community.

DR. AIVAZIAN: In the differential diagnosis consideration has been given to schizophrenia and personality disorder. Further discussion should be focused on differentiating these two conditions.

DR. DEMINICO: In trying to arrive at a diagnosis, I think that someone who is not too well versed in psychiatry would tend to think of schizophrenia in terms of the florid and dramatic symptoms of delusions, hallucinations, et cetera, and overlook symptoms of thinking or emotional disturbance that are basic parts of the psychosis. Consider first the patient's affect which was flat throughout the interview. No matter what emotionally charged questions were asked, there was no change. Next would be the process of autistic thinking which seems to impress Dr. Crupie as being a prime feature of the patient's thought processes. Her associations are loose; a question would be asked and the answer would not be to the point. She would drift off, and there was inappropriate and vague use of words. Her answers bore no relationship to the questions. Therefore, without talking in terms of the malignant symptoms which are generally regarded as being pathognomonic of schizophrenia, we have here a cluster of disordered mental processes which have to be considered as being basic and necessary symptoms of schizophrenia.

DR. CRUPIE: In considering the differential diagnosis between sociopathic personality disturbance and schizophrenia in this case, I would like to review some of the positive factors which support the former diagnosis. It is true that this girl has been in trouble with society for the past few years, at least since her mother's death three years ago. She shows emotional immaturity and a lack of a sense of responsibility. She has had little regard for usual social codes and has often come in conflict with them. She doesn't seem to have profited from experience, nor the threat of punishment. It has been observed that she sometimes will resort to lying to gain her ends, and she has been hedonistic in her pursuits. However, the marked disturbances of thinking and affect, and her bizarre behavior, are indicative of a serious mental disorder with poor reality contact of psychotic proportions. I feel that for these reasons we must rule out sociopathy in this case and consider a schizophrenic reaction.

DR. MOORE: The patient lived with an unhappy family, and her parents had marital trouble. She felt rejected by her father and overprotected by the mother. Her father was tyrannical and profane while her mother unconditionally accepted his rule. The patient's self-concept was also perceived as being the least loved child, i.e. "the boys always came first." From the ages of 3 to 22 years, she slept with and in her mother's arms, an attempt to keep her on an infantile level of emotional dependency which furthered her poor self-concept. With her mother's death she perceived rejection again, and again in her father's suggestions and plans for her. Her job of caring for an invalid may have precipitated panic and/or guilt, associated with symbolic death wishes. Her last attempt to reach for the outside world was an emotional desire for love and acceptance. She called boys for "pseudo-love-making" which, however, resulted in actual contact and pregnancy. Psychological testing shows her perception of both parents as aggressive, dominating figures. The dynamics are compatible with a schizophrenogenic family.

DR. GODSEY: There seems to be evidence of a great deal of hostility here toward males and an abnormal attraction toward females. She made a statement to one of the nurses, "My, you have such large breasts for such small girl." She slept with her mother until she was grown. She lost a love object when her mother died and

now she is trying to find something to take its place. I am suspicious of a schizophrenic process; however, I have found no clearly definite evidence of such a process. With every breath she would use the defense mechanism of projection, trying to involve the examiner and using the second person. She made bizarre statements; for example, regarding a "queer" as a person who has his sex organs in his throat. She is very hyperalert and hypersensitive. As for diagnosis, I believe if we wait and observe her for a while, more will come out and diagnosis will be no problem. I think she can be worked with, at least with supportive psychotherapy.

DR. PANDRATZ: Her environment has been deprived and limited. She has the wrong concept of what love is. There is pronounced hostility toward the male. This girl looked angry when she came in and still looked angry when she left. I don't think she knows the role of a woman. She can't express her anger, is immature. She wants to be loved, but by whom? Treatment would be long-term.

MRS. JEAN CHAMBERS: As a psychiatric social worker, I feel that this girl is more really a borderline or incipient schizophrenic than she is a personality disorder. We have a girl who has been infantilized by the mother and perhaps never really separated herself in her thinking from the mother. This mother evidently used the patient to avoid her husband and at the same time the girl was kept away from her father. This girl's thinking was about as confused in so many areas as it could be. In answering one question she gave four different answers. A real fantasy life and not much ego at all. In spite of the fact that she doesn't have a great deal of potential for therapy in some ways, I would try to use an educational approach to help her improve her concept of how normal people would react in various kinds of situations.

DR. AIVAZIAN: This patient presents a fairly common problem in differential diagnosis; viz. that of a personality disorder versus schizophrenia. The outstanding manifestation in this case has been antisocial behavior since 1961, concurrent to gradual loss of inhibitions and concern for social codes, and poor judgment. These are indication of serious disintegration of the personality and of poor contact with reality. Although the behavior pattern is suggestive of sociopathic personality (psychopath), the thought disturbances already referred to, the inappropriate affect, ambivalence, poor judgment are very strongly indicative of a serious underlying condition, schizophrenia.

In the causation of this girl's problem, the contribution made by environmental factors, especially intrafamily relationships, appear to have been substantial. The more significant ones being the mother's overprotectiveness which has hampered the patient's emotional growth, and the attitude of the male members of the family interpreted as total rejection by the patient. Consequent to the mother's death, feelings of loneliness, helplessness and hostility seem to have overwhelmed and disrupted the patient's defenses, resulting in the present illness.

Hospitalization of such patients is necessary not only for control of behavior and for protection of the patient, but also because of the unfavorable home environment for therapeutic purposes. The second step in treatment is directed toward control, and hopefully elimination, of symptoms. Finally comes the most difficult phase in treatment, that of rehabilitation and re-education.

CLINICOPATHOLOGIC CONFERENCE

Carcinoma of Liver*

This was the first admission of this 62 year old colored man with a chief complaint of shortness of breath. He had had generalized weakness and easy fatigability for about one year and saw a physician 8 weeks prior to admission for a "cold." Three weeks before admission he had had an acute episode of dyspnea and tachycardia and was told by his doctor that he had high blood pressure and was given medication for this. In the 6 weeks prior to admission he had a 20 pound weight loss, anorexia, decreased libido, and increasing weakness.

He had been known to drink heavily for over 40 years but had not used alcohol for several weeks. One day before admission he vomited coffee-ground material and had a tarry stool. He denied jaundice, dark urine, previous tarry stools or epigastric pain. Recently paroxysmal nocturnal dyspnea, orthopnea and ankle edema had been troublesome.

His occupation was as porter at an insurance company but he had worked in a bag factory in the past. He smoked one pack of cigarettes daily for years.

Past History. He denied hemoptysis, night sweats or symptoms of chronic lung disease. Has occasional vague attacks of precordial pain.

Examination. T. 98.2, P. 124, B.P. 160/100 and R. 36 per min. He was well developed, acutely and chronically ill, colored man sitting up in bed coughing frequently. One observer noted xanthelasma and liver palms. There were no icterus, impressive adenopathy or spider angiomas. Mucous membranes were pink. There was increased diameter of the chest; crepitant rales were heard by two observers, but there was no dullness. The heart was not enlarged and no murmurs were heard. The liver was palpable 4 fingers below the costal margin and described as hard and nodular with a sharp edge, and was tender. The splenic tip was barely palpable. There were no obvious signs of abdominal fluid. There was 1+ pretibial edema. Cog wheel rigidity of the upper extremities was demonstrated.

Laboratory Findings. WBC. count was 13,900. (No differential count was done. PCV. was 47%. Urine showed sp. gr. of 1.022, pH 5.0, protein 1+, 1 to 2 WBC. Platelets were 160,000 per cu. mm. Bleeding time and clotting time were 2½ min. and 20 min. respectively. Sickle cell preparation was negative. FBS was 146 mg., N.P.N. 68. mg. per 100 ml., and alkaline phosphotase 5.3 Bodansky units. Direct bilirubin was 0.3 and indirect bilirubin 0.3 mg. Cephalin flocculation was 3+-4+, thymol tubidity 25 units; and BSP. retention of 26%. Cholesterol was 240 mg.%. PTT 71%. Stools 4+ guaic. Chest x-ray showed an extensive infiltrate throughout both lung fields; the heart was normal. An upper gastrointestinal series showed an ulcer of the gastric antrum. There was no evidence of varices at fluoroscopy, and spot films of the esophagus could not be obtained due to patient's condition. IVP. was normal, and the EKG. was not remarkable. Histoplasmin skin test, 1:1000, was positive, O.T. test 1:1000 was negative. Sputum smears and cultures were negative for acid-fast bacilli. Sputum cultures grew out *Alkaligenes fecalis* on May 31; *E. coli* and Neisseria on June 2; a light growth of pneumococci on June 6, and a heavy growth of Staphylococcus coagulase positive, on June 10. Bone marrow was negative for fungi. Differential count on May 28 showed 3.5 juveniles, 80.5 segmenters, 1.5 eosinophiles, 7.5 lymphocytes and 7 monocytes. Venous pressure was 90 mm.

Course. After admission the patient developed fever of 101.6° on May 25. By the 4th day of hospitalization the rectal temperature was 103.4°. Streptomycin, INH and PAS were begun. By the 8th day the temperature was normal. However, a chest x-ray on June 6 (13th hospital day) showed no change from the admission film. The spinal fluid showed no white cells. Liver biopsy on June 5 showed normal architecture of the liver lobule without evidence of cirrhosis. By paracentesis on June 8, 400 cc. of bloody fluid was removed; cell block and culture of this were unremarkable.

During the hospitilization WBC. count ranged from 8,000 to 15,000. The PCV. low was 37 on May 27; the usual range was 40. Stools showed a trace to negative reactions for occult blood after May 26. On June 9 antituberculous medication was stopped and tetracycline begun. Gastric analysis was attempted but not completed; vomitus showed no free acid. On June 10 the patient again had dyspnea with tachycardia. The lungs were clear. On June 11 the T. was 100.8 (R), P. 124, R. 44 and B.P. 110/78. There were rales of the left base and right axilla. Circulation time was 19 sec. Oxygen was started with some relief. Two hours later his respirations became labored and he expired.

DR. DAVID LAW: We are confronted with the problems of an elderly Negro man who has a long alcoholic history and a one-year illness manifest by non-specific symptoms of anorexia, weakness, fatigability and 6 weeks of progressive deterioration with weight loss, acute pulmonary symptoms and gastrointestinal bleeding. There is evidence of significant involvement of three major organ systems.

1. Pulmonary symptoms included recurrent acute episodes of dyspnea and tachycardia, tachypnea with progressive cough,

*From the Departments of Medicine and Pathology, Vanderbilt University Hospital, Nashville, Tennessee.

precordial chest pains, and a diffuse, nodular infiltrate on chest x-ray. This x-ray could be associated with sarcoidosis but we might expect some hilar adenopathy—it could be seen with nodular silicosis far advanced but the chart tells us he had a normal chest x-ray 6 months previously. Likewise exudative tuberculosis or histoplasmosis might give such a film as might acute bronchiolitis though symptoms are not present for the latter disorder. Finally, metastatic disease to the lung must be considered. The recurrent acute episodes of tachypnea and dyspnea suggest embolization to me.

2. Liver involvement is indicated by a history of excess alcohol ingestion, hard, nodular, slightly tender hepatomegaly, splenomegaly suggesting increased portal pressure and laboratory studies (alkaline phosphatase 5.3 Bodansky units, bromsulphthalein retention of 26 per cent, thymol turbidity of 25 units and positive cephalin floculation) of parenchymal disease of the liver as opposed to infiltrative or metastatic involvement. Of extreme importance is the report of a liver biopsy showing normal lobule architecture and no evidence of cirrhosis.

I should like to digress for a moment and comment on this aspect of the problem. Liver biopsy has been used clinically for over 20 years and has become increasingly useful in recent years. In large collected series a mortality of approximately 1 or 2 in 1000 has been found and it is suspected that this may be even less with the use of the currently popular Menghini aspiration biopsy technique (Gastroenterology *3*:190, 1958). Once biopsy tissue is obtained, the likelihood of discovering *parenchymal* disease, if present, is excellent. Multiple samplings of cadaver livers from patients with cirrhosis approached 100 per cent diagnostic accuracy—*if* specimens were adequate and interpretation was accurate (A.M.A. Arch. Pathol. *62*:87, 1956) and this finding has been borne out clinically in other studies (Arch. Pathol. *50*:326, 1950). The accuracy of diagnosis in metastatic diseases in the liver is also impressive but less so than for cirrhosis. Two studies published in the past 2 years have yielded an accuracy of 75 and 78 per cent (Amer. J. Dig. Dis. 7:687, 1962 and Amer. J. Med. *31*:238, 1961). Since there need be little question about the interpretation, per se, in our case, the question, I believe, is whether the specimen was indeed adequate. It is described as "several small fragments" and there are comments on round cell infiltrate that may represent a pericholangitis. We shall return to this point later.

3. The third major organ involved is the stomach in which an antral ulcer was visualized by x-ray examination and bleeding occurred. This was interpreted as a benign lesion but we have no adequate criteria on which to evaluate it. A vomitus specimen was negative for free acid but this may well have contained bile, retained food particles and saliva neutralizing any free acid present. In order to evaluate adequately this gastric ulcer, we should have the good x-ray study which we have, plus fasting gastric aspiration (with histamine stimulation if the fasting specimen showed no free acid), cytological studies of the gastric juices and then, *if* none of these criteria suggest malignancy, a well controlled trial of therapy. Our x-ray report alone gives us approximately an 80 per cent chance of being correct in the diagnosis of benign ulcer.

Although there is evidence of renal disease, this is not impressive—blood pressure of 160/100 mm. Hg. at age 60, trace to 1+ albuminuria and a negative urinary sediment with normal intravenous pyelogram and normal phenosulphthalein excretion. The elevated nonprotein nitrogen probably was related to the gastrointestinal bleeding.

Now then, if all roads do in fact lead to Rome, there are only a few entities that we can consider to explain all aspects of the problem and even then the route is circuitous with many detours. Those primary diagnoses I should like to consider are carcinoma of the stomach, sarcoidosis, tuberculosis or histoplasmosis, periarteritis nodosa and cirrhosis of the liver.

Carcinoma of the stomach metastatic to the liver and lung could cause this symptom complex but the only information we have about the ulcer suggests it is benign. We have laboratory findings strongly suggesting cirrhosis or parenchymal disease and not the pattern seen with metastases.

In addition, we know from pathological studies that metastases to the cirrhotic liver are relatively rare (Amer. J. Med. Sci. *233*:145, 1957 and Amer. J. Pathol. *39*:739, 1961). For these reasons carcinoma of the stomach seems unlikely to me as an explanation for the entire clinical and laboratory picture.

Sarcoidosis with progressive pulmonary involvement, liver involvement (seen in about 2/3 of the cases), and ulcer of the stomach (a rare but recorded manifestation), could be implicated, however, the bloody ascites is almost impossible to explain on this basis There are only about 8 cases of ascites with liver disease on this basis recorded in the world literature (Arch. Int. Med. *108*:483, 1961). Also against this diagnosis is the positive histoplasmin skin test, for the majority of patients with sarcoidosis show an anergy with failure to respond to skin test antigens provoking delayed reactions.

Tuberculosis is made less likely by the negative skin test, lack of night sweats, relatively late onset of fever and long duration of illness. The liver chemistries are not those seen with so-called primary tuberculosis of the liver and the white blood cell count is usually in the 2000-9000 /mm^3 range (J.A.M.A. *164*:150, 1957). With histoplasmosis most of the same arguments apply—the lung findings are unusual for a years illness and although ulcerations may occur in the gastrointestinal tract, a discrete gastric ulcer is most unusual.

Of the connective tissue diseases that might cause this picture, periarteritis nodosa comes closest. The sex and age are appropriate and multiple organ systems are involved but they are involved in unusual ways for periarteritis. The lung picture is more diffuse than usually seen, the degree of hepatic involvement is excessive and an incidental cirrhosis would have to be implicated. There were no neurological findings and minimal renal distress. In addition, we do not see elevated white blood counts, eosinophilia or anemia.

We come back to the fact that in spite of the biopsy report this man had clinical and laboratory evidence of cirrhosis. The natural history of cirrhosis could explain his entire picture. To wit, whenever a patient with long-standing cirrhosis shows rapid clinical deterioration one must consider the development of hepatoma. The average age in several large series from this country is in the sixth to seventh decade, and men seem to be affected more commonly than women. The symptoms are vague and nonspecific and include weight loss, anorexia, abdominal pain, large nodular liver, intraperitoneal hemorrhage and frequently terminal fevers and anemia. Jaundice need not be present. The liver chemistries are perfectly appropriate—what of the pulmonary and gastric findings? Hepatoma will invade the hepatic veins and even inferior vena cava in a sizeable percentage of patients. Multiple small or large pulmonary emboli may ensue and there can be either tumor emboli or those related to hepatic vein thrombosis, per se. Indeed, the most common sites of metastasis are the lungs and regional lymph nodes (Cancer 7:462, 1954). Such emboli could account for the acute episodes of dyspnea and tachycardia and the x-ray findings. The gastric ulcer in this instance might be explained as a manifestation of the proclivity of the cirrhotic patients for peptic ulcer disease. In a recent review this has been shown to vary from 3.9 to 25 per cent and there is general consensus that peptic ulcer occurs with greater frequency in patients with cirrhosis (Amer. J. Dig. Dis. *3*:24, 1958).

In summary, on the basis of the data we have available, I do not think one can say with assurance what the autopsy diagnosis or diagnoses will be. I believe we must assume, however, that this patient *did* have parenchymal liver disease—all data pointing to Laennec's cirrhosis and all findings possibly explained on the natural history of this disorder. Of the various tests and procedures we might have utilized to secure this diagnosis prior to death, I would choose to repeat the one which caused the most concern, i.e., needle biopsy of the liver.

DR. JOHN L. SHAPIRO: Much of what I have to say will be merely corroborative of the conclusions that Dr. Law has reached on the basis of his clinical appraisal. As he suggested, primary liver disease, apparently associated with heavy intake of alcohol, and its recognized complications ac-

count for the progressive disease shown in this patient.

The liver was greatly enlarged and its external surface consisted of numerous nodules ranging in size from 1 to 5 cm. The liver was brownish in color except some larger nodular areas which had a whitish appearance. The internal architecture of the liver was distorted by bands of fibrous connective tissue, hyperplastic nodules of liver tissue and irregular nodular areas of tumor. The tumor was apparently more concentrated in the anterior aspects of the right lobe, although all portions of the liver were involved. Granular, friable tumor tissue was seen extending from the larger radicals of the hepatic veins into and completely filling the inferior vena cava for a distance of some 5 centimeters. On microscopic section a wide variety of changes was seen in the liver nodules. These ranged from zones of nodular hyperplasia all the way to frankly neoplastic nodules, still bearing a morphologic resemblance to liver cord cells. (Fig. 1 & 2.)

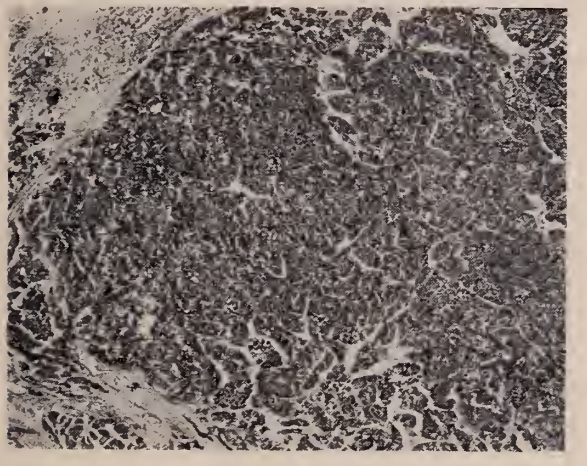


FIG. 1

The pulmonary disease was accounted for on the basis of innumerable metastatic nodules which had traveled by way of the inferior vena cava and pulmonary artery. The diffuseness of this process is illustrated in the gross appearance of the lung visualized in Fig. 3. As stated by Dr. Law, the liver cell carcinoma has a remarkable propensity to invade and embolize through the inferior vena cava. This is well illustrated in the present case. Apparently there was

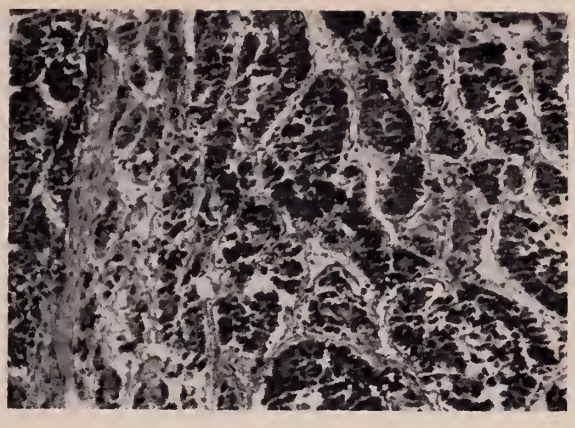


FIG. 2



FIG. 3

a great deal of associated portal vein obstruction in this case inasmuch as there was significant enlargement of the spleen to a size of 550 grams.

We were unable to find any esophageal varices as a site of hemorrhage. However, on the lesser curvature of the stomach in the prepyloric region there was a 1 cm punched-out ulceration which was grossly and microscopically typical of a benign peptic ulcer. This undoubtedly was a source of the hemorrhage which had been noted clinically.

I would like to congratulate Dr. Law on disregarding the intrepretation put upon the liver biopsy which was obtained clinically. One of the main reasons for presenting this case is to point out that ordinarily such biopsies are quite reliable but, on occasion, the results obtained may be misleading if taken without reference to other findings. I personally reviewed this section again and had other members of

the Department review it with the possibility of picking up an error on our previous interpretation. However, none of us felt that even with the knowledge at hand we could make a diagnosis of cirrhosis of the liver from the material available. It is my conclusion that this material was obtained by chance from a seemingly normal part of a hyperplastic nodule. However, I would like to emphasize with Dr. Law that ordinarily a very satisfactory interpretation can be made by means of such needle biopsies of the liver.

Anatomic Diagnosis

1) Liver cell carcinoma with invasion of hepatic veins and inferior vena cava
2) Multiple pulmonary tumor emboli
3) Liver cell carcinoma metastatic to lung
4) Portal cirrhosis of liver
5) Benign prepyloric gastric ulcer
6) Passive congestion of spleen due to intrahepatic portal obstruction

President's Page



DR. CANNON

It is the duty of every physician who has to deal with medical cost to patients to be fully aware of the economic situation in medicine as it exists today. This concerns not only practicing physicians, but also hospital management, purveyors of medical supplies and drugs, and ancillary medical services. Frequently, statistics are quoted to show that medical costs are rising and will continue to rise at a greater rate than living cost in general.

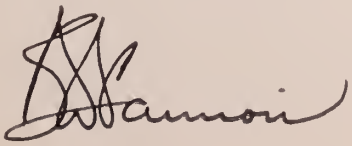
The U.S. Department of Commerce reported in July, 1961, that in the twenty-year span since 1940, the medical care dollar has gone up from 18 cents to 26 cents for hospitals and from 5 cents to 8 cents for health insurance, while drugs have dropped from 21 cents to 20 cents, and physicians' fees from 30 cents to 25 cents.

As physicians, we should be particularly interested in the Kerr-Mills program since it is involved with medical care to the near-needy aged.

Tennessee has made rapid progress since the inception of the MAA program. Four expansions in the provisions for aged persons have been made since July 1, 1961. Further expansion in this program is being constantly sought by your State Medical Association. Increasing the economic limits is a must for the MAA program and discussions with state administration leaders on this matter are already scheduled.

One of the tools now being used resulted from an action of the House of Delegates last April when a "Committee on Implementation of the Kerr-Mills Program in Tennessee" was established. This committee adopted some important goals. They were: (1) Full information about the Kerr-Mills Program and its implementation be made known to the medical profession in Tennessee; (2) editors of daily and weekly newspapers in the state should be kept informed relative to the program, its scope and purpose; (3) the committee is maintaining the best possible liaison with Tennessee members of Congress and informing them about the program, furnishing them with regular reports concerning the progress and scope of the Medical Assistance to the Aged in this state; (4) the committee has petitioned the Department of Public Welfare to conduct workshops throughout the state to further inform and educate county welfare personnel, physicians and interested persons who need information about programs for aged citizens; (5) the publishing of a brochure listing all information pertaining to the health care of the aged, including the near-needy aged, as well as those on public assistance, other programs such as health care for the indigent in the state, rehabilitation, crippled children's service, and others. This brochure is practically completed and will be mailed to physicians and related persons in this state at an early date. The Kerr-Mills program is becoming more effective as shown by the results of a recent survey by the AMA. Old Age Assistance programs under Kerr-Mills are in effect in all 54 states and jurisdictions. A total of 42 states and jurisdictions have enacted legislation to provide medical assistance for the aged for near-needy persons not receiving old age assistance. Medical assistance for the aged programs are in effect in 34 states and jurisdictions, 5 others have adopted programs effective at later dates, and 3 others have approved programs without appropriating funds. The MAA program in Tennessee is now expanding at the rate of approximately 1,000 persons each month.

Therefore, it behooves every physician to keep informed on these serious issues of the day affecting his profession.



President

THE JOURNAL
OF THE
TENNESSEE MEDICAL ASSOCIATION
Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor, B-4211 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK AND POST GRADUATE EDUCATION

R. H. KAMPMEIER, M.D., Chairman
W. POWELL HUTCHERSON, M.D., Chattanooga
ROBERT P. MCBURNEY, M.D., Memphis
EUGENE J. SPIOTTA, M.D., Memphis
(Specialty Society Representatives to be named)

SEPTEMBER, 1963

EDITORIAL

ASIAN FLU VACCINE

The time is not too distant when the practicing physician will begin to ask himself the question as to whether or not he will immunize all his patients against the Asian Flu. Certainly patients will soon begin to ask for advice in this area.

If each one reviews his personal experience, he is often left with some doubt as to how effective his prophylactic prescription is in protecting his patients from this epidemic disease. Public health statistics give some clues also, but are not a final judgment in the matter.

It would indeed be helpful if there was available an impersonal laboratory test which would tell us if the procedure is or is not what we desire.

Saslaw and his group* from Columbus, Ohio studied 772 aged individuals. Comparing the antibody response in those receiving 1 cc. subcutaneously with those receiving 0.1 cc. polyvalent Asian Virus Vaccine intradermally, the former method gave a much better initial response. After the initial vaccination a booster shot, either subcutaneously or intradermally, resulted in similar degree of serologic antibody titre increase.

Their conclusion was that a single prophylactic injection of 1 cc. subcutaneously would suffice in producing immunity. If, however, circumstances suggest a booster dose, then 0.1 cc. intradermally was as effective in boosting the titre as was another injection subcutaneously. Injection of a placebo had no influence on the antibody titre.

One can conclude that immunization against the Asian Flu is an orderly, logical and effective procedure and is to be recommended.

A. W.

*Saslaw, S., Carlisle, H. N., Slutzker, B., and Sparks, Joann: Antibody Response to Polyvalent Influenza Virus Vaccine Administered Intradermally or Subcutaneously in an Aged Population, Am. J.M.Sc. 245:387, 1963.

PERIPHERAL ARTERIAL EMBOLISM

The development of surgical techniques for the management of peripheral arterial embolism has been one of modern surgery's most important accomplishments. Jess R. Young and his associates[1] at the Cleveland Clinic have evaluated their results and have devised a rational plan for management of such patients.

The clinical picture which results from an embolus will vary depending upon many factors, such as the size of the embolus, the area supplied by the occluded artery and the amount of collateral circulation. In addition, the clinical picture may change in a short time due to an increase or decrease of arteriospasm or movement of the embolus to a more distant location.

Over two-thirds of the emboli were localized in one of three areas:—the aortic, the iliac and the femoral bifurcations. Almost all of the emboli originated from the heart and, interestingly, almost half of the patients with atherosclerotic heart disease and all the patients with rheumatic heart disease had atrial fibrillation. In their series embolism occurred in 8, either during or immediately after mitral commissurotomy, and in 9 occurred within a month after an acute myocardial infarction.

Arterial embolism must be suspected in any patient who experiences the sudden onset of pain, coldness and numbness of an extremity. The suspicion is greatly strengthened if the patient has cardiac disease associated with atrial fibrillation or has had a recent mycardial infarction.

Young and his co-workers have devised a classification of ischemia which is an integral part of their management of arterial embolism. (1) *Mild ischemia* refers to the limb which will obviously survive without specific treatment and which shows no sensory loss or motor paralysis. (2) *Severe ischemia* describes a limb which has suffered sensory loss or motor paralysis. (3) *Irreversible gangrene* is the result of severe ischemia which has persisted for a sufficient period to allow skin necrosis, paralysis of nerves, induration of muscles and thrombosis of veins to occur. Even if blood flow could be restored to this limb, gangrene could not be reversed.

Although each patient having an arterial embolus requires individual study to determine the proper method of treatment, the following general plan was evolved. (1) mild ischemia, conservative treatment with bed rest, anticoagulation, and sympathetic block is followed. (2) For severe ischemia, surgical intervention with embolectomy is indicated unless the patient's general condition absolutely forbids the procedure. (3) For irreversible gangrene amputation must be done. Embolectomy is rarely indicated except for an occasional attempt to lower the level of amputation.

The authors believe that embolectomy can be done on almost all patients regardless of age, primary heart disease or coexistent arteriosclerosis. Simple embolectomy done early is less traumatic than an amputation done several days later when the patient's general condition is little, if at all, better and is often considerably worse because of toxicity from the affected extremity .

They emphasize the importance of performing embolectomy as soon as possible after it becomes apparent that the procedure is necessary because of the tendency for clot to propagate both distally and proximally. Andrus[2] and others have placed a time limit, such as eight or twelve hours, after which embolectomy should not be attempted. In this series reported by Young and associates, when embolectomy was performed within the first twelve hours 92% of the limbs survived; when performed between twelve and forty-eight hours, 82% of the limbs survived. Even when operation was performed two to seven days after embolism nine of thirteen limbs survived.

A comparison of his results with those of Hainmovici[3], whose patients were either not treated or treated conservatively, showed the superiority of this plan of management in the medically treated and the embolectomy series. Young's hospital mortality rate was 30%, considerably less than in many series, which he attributes to a lowered amputation rate associated with successful embolectomy.

The technical advances in vascular surgery as well as the more widespread use of embolectomy will undoubtedly improve both patient and limb survival rates. With the increasing age of our patients any procedures which can improve survival rates for the limb, and thus decrease crippling and incapacity, is a welcome addition to our medical armanmentarium.

A. B. S.

References

1. Young, J. R., Humphries, A. W., DeWolfe, V. G., and LeFevre, F. A.: Peripheral Arterial Embolism J. A. M. A. 185:621, 1963.

2. Andrus, W. DeW.: Peripheral Arterial Embolism, with Particular Reference to Evaluation of Conservative Treatment, Arch. Eurg. 60: 511, 1950.

3. Haimovici, H.: Peripheral Arterial Embolism; Study of 330 Unselected Cases of Embolism of Extremities, Angiology 1: 20, 1950.

DEATHS

Dr. M. E. Thompson, 86, Oneida, died August 15th at his home following a long illness.

Dr. James S. Lyons, 77, Rogersville, died July 31st in a local hospital. Dr. Lyons was president of the Hawkins County Medical Society.

Dr. Robert Basist, 34, Memphis died August 9th as a result of a heart attack.

Dr. Samuel J. Blackwell, 62, Memphis, died July 31st after a long illness.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Knoxville Academy of Medicine

The Society's regular monthly meeting was conducted on August 13th in the Academy of Medicine Building. Drs. Reid Collman and William Laing presented a film and discussion on the practical aspects of gastroscopy. A three-minute on Emphysematous Cholecystitis was presented by Dr. John E. Kesterson.

Roane-Anderson County Medical Society

The Roane-Anderson County Medical Society conducted its meeting on August 27th in the cafeteria of the Oak Ridge Hospital. Preceded by a dinner, the scientific program was presented by Dr. Edwin W. Cocke, Jr., Associate Professor of the Department of Otolaryngology, University of Tennessee, Memphis. Dr. Cocke's subject was "Hoarseness—Causes and Treatment".

Chattanooga-Hamilton County Medical Society

The Society held its monthly meeting in the auditorium of the Interstate Building on August 6th where the following scientific program was presented: "Four Years Obstetrics in General Practice in a Small Hospital" by Dr. Robert J. Pitner. "Zarate Symphysiotomy for Obstetrical Emergencies" by Dr. Lester F. Littell.

Memphis-Shelby County Medical Society

Dr. Nobel W. Guthrie, assistant director of the Memphis-Shelby County Health Department, spoke to members of the Society at its regular monthly meeting on August 6th in the auditorium of the Institute of Pathology. Dr. Guthrie's talk entitled "The Preservation of Private Practice" was preceded with the membership session of the society.

NATIONAL NEWS

The Month in Washington

(From the Washington Office, AMA)

The Food and Drug Administration, acting on the advice of a committee of medical experts, gave the go-ahead for continued use of the oral contraceptive Enovid. However, the agency urged certain cautions in its use. Continued use only on physician's prescription was recommended. There is not enough evidence available now to show any relationship between consumption of Enovid and the occurrence of certain circulatory disorders, mainly thrombophlebitis and pulmonary embolism, according to the advisory committee.

However, FDA requested the manufacturer, G. D. Searle & Co., to advise physicians on the labeling of certain contraindications and of an apparent hazard in women over 35. Principal contraindication's for use of Enovid as a contraceptive were listed as: (1) certain cancers; (2) liver disfunctions or disease; (3) patients with a history of thrombophlebitis or pulmonary embolism. Enovid, used by some two million American women, was recommended only for short-term use (2-4) years, and primarily where pregnancy is contraindicated.

The advisory committee, formed five months ago, said statistical evaluation indicates that there is an apparent hazard from the consumption of Enovid by women 35 years of age or over. FDA said this apparent hazard must be weighed by the physician against the demonstrated hazard of pregnancy in determining whether to administer the drug to women of that age group.

The committee found need for additional studies regarding the possible effects of Enovid. Such studies are now under way and others will be undertaken.

The advisory committee was headed by Irving S. Wright, M. D., New York, N. Y. Copies of the report are available upon request to Division of Public Information, Food and Drug Administration, Washington 25, D. C.

★

The federal government sharply questioned the actions of the developer of Krebiozen in a brief filed in Chicago Federal District Court. The brief was the government's answer to charges by Dr. Stevan Durovic, discover of Krebiozen, that he was being harassed by Federal agents.

The government has charged that Durovic

resisted and hampered its investigation of the alleged anti-cancer product, which has been banned from interstate commerce.

The government said Durovic in 1950 bought more than 1 million ampules. This was five times the amount of ampules he needed to handle the Krebiozen powder he had brought to the United States from Argentina, the brief said.

Durovic has said he discovered the excess ampules were defective and destroyed them last May.

The government brief said "it may be that a half million ampules were destroyed on May 15, 1963. It may be that Durovic purchased enough mineral oil in 1950 to fill more than a million ampules with Krebiozen solution, but poured all of the excess over that needed to fill 200,000 amples down the drain.

"It may be. But there are strong reasons to doubt it. And this is where the investigation is called for most urgently."

The brief said that although Krebiozen has been sold for $9 an ampule, the cost per ampule is about 8 cents.

★

Other Washington Developments

The Pharmaceutical Manufacturers Association and forty-four U. S. drug producers filed official objections to "invalid" proposed regulations over drug advertising. The industry asserted that rules issued by the Food and Drug Administration go beyond the law and the intent of Congress.

One regulation subjects virtually all drug advertisements in professional journals to possible federal pre-publication censorship. The petition addressed to the FDA states that this "disregards the statutory command."

Also, according to the industry, FDA has gone beyond powers granted by Congress by trying to specify how prescription drug advertisements should be designed and written and where certain information should be placed. The law requires such advertisements to carry information in "brief summary" relating to side effects, contraindications and effectiveness, but it does not give the Department of Health, Education and Welfare power over the entire layout, typography and content, the industry asserted.

"The main difficulty is that the Food and Drug Administration, in these regulations, treats advertising as labeling," Dr. Austin Smith, president of the PMA, said. "Congress made a clear distinction between the two."

★

Congressional polls are showing strong grass-roots opposition to any medical-hospital plan for the aged under the Social Security system. Twenty-three polls so far have asked for an opinion on the controversial issue. In one it was revealed a majority favored the plan. The questionnaires were sent by congressmen from both parties and from the sections of the nation.

Some 211,666 individual responses were included in a tabulation of the polls, with 134,973 individuals opposed to the use of the Social Security mechanism, 58,121 favoring it, and the remaining 18,572 with no opinion. The tabulation shows that 63.8% of those responding opposed the use of the Social Security mechanism, 27.4% favored it, and 8.8% had no opinion. Comparative percentages tabulated near the close of the 87th Congress were 84.4% in opposition, 39.2% in favor, and 6.4% with no opinion.

Staffing Provisions of Mental Health Bill Deleted

The full House Interstate and Foreign Commerce Committee considered, on Tuesday, August 13, S. 1576, Mental Retardation Facilities and Community Mental Health Centers, after receiving the recommendation of its Subcommittee on Public Health and Safety . . . The Subcommittee recommended that the staffing provisions of the bill be deleted in their entirety. . . . The effect of this amendment is to reduce the program by $169 million . . . On a motion made by representative Paul Rogers (D., Fla.) the full House Committee voted 15-12 to accept the Subcommittee's amendments . . . If the Committee recommendations are accepted by the House, the program envisioned by this bill would cost $238 million as compared to the $850 million in the Senate passed version . . . House actions on S. 1576 is anticipated at an early date.

MEDICAL NEWS IN TENNESSEE

Mass Immunization Programs Announced

Two additional counties have announced plans for conducting mass immunization programs with Sabin oral vaccine for the prevention of polio. The Bradley County Medical Society will begin its program on October 6th, and the Franklin County Medical Society will hold its first clinic on September 29th.

Expansion Planned for Knoxville Hospital

Baptist Hospital in Knoxville has awarded a $177,000 contract for construction of a cancer therapy unit as a part of a major $4,000,000 expansion program planned for the hospital. The over-all expansion plan will increase the hospital's capacity to above 400 beds.

Equipment in the unit will include a Cobalt 60 machine, with a Picker telecobalt unit of 3000-curie capacity, a General Electric 300-KV maxitron deep therapy unit, and complete facilities for radiation therapy.

The other part of the expansion will include a seven-story addition that will have approximately 100 beds when it is constructed in the near future.

New Wing to Be Added to Springfield Hospital

Plans are underway for a new wing to be added to the Jesse Holman Jones Hospital in Springfield. The new charity wing will contain 44 beds, plus administrative offices. The beds will bring the hospital's total to more than 100.

University of Tennessee College of Medicine

A new office to coordinate the University of Tennessee's development activities in West Tennessee has been established at the Medical Units in Memphis. Duties of the office will be to work with individuals and business concerns in West Tennessee to secure financial support for the University's rapidly expanding program. Special emphasis will be placed on the needs of the Medical Units in Memphis and the University's branch at Martin.

★

Promotion of 30 members of the staff of the University of Tennessee College of Medicine has been announced by Dr. M. K. Callison, Dean of the University. The promoted and their new ranks are:

Dr. Alvin J. Cummins, professor of medicine
Dr. Glenn Clark, professor of medicine
Dr. Thomaš N. Stern, associate professor of medicine
Dr. Fred E. Hatch, assistant professor of medicine
Dr. Stanley B. Kaplan, assistant professor of medicine
Dr. Iris A. Pearce, instructor in medicine
Dr. Marion Dugdale, assistant professor in medicine laboratories
Dr. Jerome Schroff, associate professor of psychiatry
Dr. William W. Walker, assistant professor of psychiatry
Dr. Lillie C. Walker, associate professor of preventive medicine
Dr. David M. Mills, assistant professor of medicine
Dr. E. W. Cocke, associate clinical professor of otolaryngology
Dr. Jose Gross, assistant professor, otolaryngology
Dr. Thomas A. Maguda, assistant professor, otolaryngology
Dr. Maury Bronstein, assistant clinical professor, medicine
Dr. James B. Flanagan, assistant clinical professor, medicine
Dr. James S. Haimsohn, assistant clinical professor, medicine
Dr. Kyle Creson, clinical instructor, medicine
Dr. Norman Davis, clinical instructor, medicine
Dr. Alfred Nelson, clinical instructor medicine
Dr. Frank S. Dietrich, professor, medicine
Dr. J. Pervis Milnor, Jr., associate clinical professor, medicine
Dr. James E. Alexander, assistant clinical professor, medicine
Dr. Dominic J. Cara, assistant clinical professor, radiology
Dr. William E. Long, assistant clinical professor, radiology
Dr. Irving K. Ettman, assistant clinical professor, radiology
Dr. Hollis H. Halford, clinical instructor, radiology
Dr. Morton L. Gubin, clinical instructor, obstetrics & gynecology
Dr. Robert M. Miles, Jr., associate professor surgery
Dr. Bob D. Hale, research associate, preventive medicine

The United States Public Health Service has awarded three departments in the University of Tennessee College of Dentistry $32,796 to encourage Tennessee dentists to participate in a new program for the early detection of oral cancer. Members of the U-T faculty will visit dentists to explain the program and ask their cooperation.

★

Dr. P. J. Sparer, professor of psychiatry and preventive medicine, has been awarded $3,000 by a pharmaceutical firm to conduct a preliminary study of psychiatric and psychological aspects of obesity. The pilot study will be made on a small number of selected patients who have been unsuccessful in a weight reduction program.

★

Four physicians have joined the staff of the University of Tennessee College of Medicine. They are: Dr. George L. Barker, instructor in radiology; Dr. George M. Cannon, assistant professor of anesthesiology; Dr. William M. Todd, associate professor of microbiology; and Dr. Lawrence D. Wruble, a member of the staff in the section of gastroenterology.

Vanderbilt University School of Medicine

Dr. George V. Mann, associate professor of biochemistry and assistant professor of medicine has been awarded a grant of more than $10,000 to support the continuation of his research work on the possible association between several of the degenerative diseases and a deficiency of sulphur amino acids.

★

Two grants, totaling $8,000 have been made to Vanderbilt University School of Medicine and Meharry Medical College, by the Smith, Kline & French Foundation in Philadephia. Vanderbilt received $5,000 for its medical school program, and Meharry received $3,000 for equipment of a new research wing.

County Medical Auxiliary Receives Award

Members of the Chattanooga-Hamilton County Medical Auxiliary were presented an award by the American Medical Association at its meeting in Atlantic City for the largest contribution by a state to the American Medical Association Education and Research Foundation. Hamilton County also received a certificate for the County Achievement Award, which is based on the size of membership.

John Sevier Chapter of the Tennessee Academy of General Practice

Over 100 area physicians attended a postgraduate medical seminar in Johnson City on August 28th. The seminar, sponsored by the John Sevier Chapter of the Tennessee Academy of General Practice, was a part of a nationwide program of the American Academy of General Practice. An outstanding group of professors from the University of Kentucky School of Medicine addressed the seminar on the theme "Gastro-intestinal Functions."

Memphis Surgical Society

Dr. Nicholas Gotten was named president of the Memphis Surgical Society at the annual president's party on August 14th. The outgoing president, Dr. Robert M. Miles, was host to the group at the Summit Club. Other officers elected were: Dr. Charles Olim, vice president, and Dr. William T. Tyson, secretary-treasurer.

PERSONAL NEWS

Dr. James S. Hastie, formerly of Nashville, has taken over the practice of **Dr. W. R. S. Stewart** in Goodlettsville. Dr. Stewart is studying to specialize in psychiatry at the Tennessee Psychiatric Hospital, Memphis.

Dr. John B. McKinnon, Johnson City, discussed the Medicare Bill now pending in Congress before the Kiwanis Club on July 17th and the Rotary Club on August 6th.

Dr. Halden W. Hooper, Gallatin, has been named co-chairman of the bloodmobile program for Sumner County.

Dr. Robert J. Barnett, Jackson, recently addressed the District 5, Tennessee Society of X-Ray Technicians.

Dr. Wesley F. Jones has been elected chief of staff at Lexington Hospital succeding **Dr. Jack Stripling. Dr. Fred Looper** was named vice chairman and **Dr. Warren Ramer**, Secretary.

Dr. Charles Scott, Morristown, was a recent guest speaker at the meeting of the Cancer Society in Newport. His subject was, "Recent Development in Cancer Research".

Dr. W. D. Calhoun has joined **Dr. C. S. Young** and **Dr. John A. Shields** in the practice of medicine at the Shields and Young Clinic in Manchester.

Dr. Charles A. Trahern, Clarksville, recently addressed the Kiwanis Club on current issues and legislation regarding medical care for the aged.

Dr. Thayer Wilson, Carthage, has been named Smith County Chairman for the Mental Health Association.

Dr. Ralph R. Braund, Memphis, was the guest speaker for the annual meeting of the Gibson County Chapter of the American Cancer Society.

Dr. R. R. Crowe, Nashville, has been named director of hospitals for the Metropolitan government of Nashville and Davidson County.

Dr. J. Lynwood Herrington, Nashville, was a recent speaker on a surgical symposium at the meeting of the North Carolina Medical Association in Wilmington, North Carolina.

Dr. John S. Burrell has opened his office in the Lake City Hospitals for the practice of medicine and surgery.

Dr. J. C. Lowe, Cleveland, was the guest speaker at a recent meeting of the Area 18 Licensed Practical Nurses Association. His subject was, "Care of a Surgical Patient".

Dr. T. A. Lincoln, Oak Ridge, has been certified in occupational medicine by the American Board of Preventive Medicine and Public Health.

Dr. C. Y. Clarke, Dr. G. C. English and **Dr. J. H. Jones, Sr.,** with a total of 150 years in the practice of medicine in Mt. Pleasant, were guests of honor recently at a banquet given by four local civic clubs.

Dr. W. B. Farris, Nashville, was a recent speaker before the Lions Club in Franklin.

Dr. D. Clifford Ludington, founder of Sequatchie County General Hospital, has assumed duties as head of a new million-dollar hospital under construction at Benghazi in Libya.

Dr. Joel C. Morris, Knoxville, is leaving that city to practice medicine in Brownfield, Texas.

Dr. John M. Wilson, Greeneville, has been certified as a Mental Hospital Administrator by the American Psychiatric Association.

Dr. Peter Oliva, formerly of Memphis, has moved to Johnson City and is practicing as a plastic surgeon.

Dr. Woodruff A. Banks, Jr., Chattanooga, announces the opening of his office for the practice of general surgery.

Dr. Don J. Russell, Chattanooga, will join **Dr. James W. Davis** in the practice of plastic and reconstructive surgery.

Dr. Ben F. House has opened his office in Jackson for the practice of ophthalmology.

Dr. Al Walton Gothard, a former Chattanoogan, has returned to begin the practice of internal medicine.

Dr. Cecil Rowe, formerly of Jefferson City, has opened his office for the practice medicine in Sevierville.

Dr. Nicholas Atria, Deputy Commissioner for Hospital Services, Tennessee Department of Mental Health, has accepted the position of superintendent of the Kansas Neurological Institute, at Topeka, effective August 1.

Dr. R. H. Kampmeier, Nashville, was the official American Medical Association representative to the Sixth International Congress of Gerontology in Copenhagen, Denmark, August 11-16. He read a paper with **Dr. William B. Wilson,** Nashville, as co-author.

ANNOUNCEMENTS

Calendar of Meetings, 1963

State

Sept. 30-Oct. 1—Tennessee Valley Medical Assembly, Read House, Chattanooga

Oct. 9—Tennessee Rural Health Conference, Andrew Johnson Hotel, Knoxville

Oct. 10-11—International Symposium on Lipid Transport, Vanderbilt University School of Medicine, Nashville

Oct. 17-19—Clinical Orthopaedic Society, Nashville

Oct. 24-25—Tennessee Academy of General Practice, Nashville

Nov. 8-9—Southern Society for Pediatric Research, St. Jude Hospital, Memphis

Nov. 13-14—First Tennessee Congress for Mental Illness and Health, Hermitage Hotel, Nashville

Nov. 21—Middle Tennessee Medical Association Fall Meeting, Camp Campbell, Kentucky

Feb. 11-14, 1964—Mid-South Medical Assembly, Peabody Hotel, Memphis

Regional

Sept. 20-21—National Rural Health Conference, Arlington Hotel, Hot Springs, Arkansas

Nov. 18-21—Southern Medical Association, Municipal Auditorium, New Orleans, La.

Dec. 10-12—Southern Surgical Association, Homestead, Hot Springs, Va.

National

Oct. 5-10—American Academy of Pediatrics, Palmer House, Chicago, Illinois

Oct. 8-12—Congress of Neurological Surgeons, Denver Hilton Hotel, Denver, Colorado

Oct. 20-23—American College of Gastroenterology, Shoreham Hotel, Washington, D.C.

Nov. 2-6—American Society of Anesthesiologists, Palmer House, Chicago
Nov. 30-Dec. 1—American College of Chest Physicians, Portland, Oregon
Nov. 30-Dec. 5—American Academy of Dermatology, Palmer House, Chicago, Illinois
Dec. 1-4—American Medical Association Clinical Meeting, Memorial Coliseum, Portland, Ore.

American College of Physicians Postgraduate Course

Postgraduate Course No. 4 on "Allergy and Hypersensitivity States" will be presented by the American College of Physicians, October 28-November 1, at Northwestern University Medical School, Thorne Hall, in Chicago. The purpose of the course is to bring to the internist up-to-date information in the field of conventional allergy and other hypersensitivity states.

Requests for information and application blanks should be directed to Edward C. Rosenow, Jr., M.D., 4200 Pine Street, Philadelphia 4, Pennsylvania.

13 Special Courses at UT for Physicians

Thirteen courses for physicians will be offered by the Department of Continuing Education of the University of Tennessee Medical Units at Memphis during the remainder of 1963 and the first half of 1964.

Scheduled during 1963 are: Anesthesia for the General Practitioner, September 2-6; Endocrinology—Diagnosis and Treatment, October 9-11; Pediatric Hematology, October 28-29; Allergy, October 30-November 1; Emergency Surgery—Acute Injuries, November 6-8.

For 1964, the following are scheduled: Radiology, March 9-13; Surgery of the Hand, March 19-21; Obstetrics and Gynecology, March 25-27; Pediatric Allergy, April 1-3; Fractures and Dislocations, May 13-15; Intensive Review of the Science of Anesthesiology, May 18-22; Psychiatry, May 27-29; Emergencies in Medicine, July 15-17.

Postgraduate Seminar in Anesthesiology

The University of Miami and University of Florida Schools of Medicine will conduct their First Annual Postgraduate Seminar in Anesthesiology in Miami Beach, Florida, on January 5-8, 1964.

The theme for the seminar is "The Cardiovascular System." The program will consist of five panel discussions: (1) Psychological considerations in circulation, (2) Recent advances in management of cardiac arrest, (3) Pharmacological considerations related to circulation, (4) Surgical and anesthetic management of the patient with heart disease, (5) Symposium on hemorrhagic and septic shock.

Dwight E. Clark Memorial Lecture

As a community service, the Roane-Anderson County Medical Society, will present the fourth annual Dwight E. Clark Memorial Lecture on October 28th in Oak Ridge. The general public is invited to hear Dr. Austin Smith speak on the subject of "Health in the Space Age." Dr. Smith is President of the Pharmaceutical Manufacturers Association, former Editor and Managing Publisher, Journal of the American Medical Association, and Chairman of the Board of Directors of the U.S. Committee of the World Medical Association.

Sixth Annual Medical Progress Assembly in Alabama

Tennessee physicians are invited to attend the Sixth Annual Medical Progress Assembly in Birmingham, Alabama, October 6-8. The Assembly will be held at the Tutwiler Hotel.

Lecture subjects will include arthritis, cardiology, diabetes, endocrinology, gastroenterology, medicine, neurology, obstetrics-gynecology, pathology pediatrics, radiology and surgery.

The Assembly has been accepted for 15 hours of Category I credit by the American Academy of General Practice and is sponsored by the Birmingham Academy of Medicine in cooperation with the Jefferson County Medical Society and the Alabama Academy of General Practice.

Postgraduate Course on Current Concepts in Therapy of Cerebral Palsy—Vanderbilt University School of Medicine

The Department of Orthopedic Surgery is offering a one day course on the Current Concepts in Therapy of Cerebral Palsy on Wednesday, October 23. Dr. Henry H. Banks, Associate in Orthopedic Surgery at the Harvard Medical School, the Peter Bent Brigham Hospital, and the Children's Hospital, Boston, Massachusetts, will be the disinguished guest. Dr. Banks is an authority in the treatment of cerebral palsy and is Chairman of the Committee on Evaluation of Treatment Methods which is sponsored by the American Academy for Cerebral Palsy and supported jointly by the United Cerebral Palsy and the National Society for Crippled Children and Adults. The day is intended as a review of current concepts in treatment of cerebral palsy and is planned for physicians and professional workers in the treatment centers of this area.

The United Cerebral Palsy of Middle Tennessee is making it possible for professional workers in cerebral palsy to participate in this course. Their registration fee may be paid by United Cerebral Palsy of Middle Tennessee if requested by the applicant.

Cardiac Day

The symposium on heart disease presented annually by the Middle Tennessee Heart Association, will be held at Vanderbilt Hospital on Fri-

day and Saturday, November 8 and 9. This year's program, to be sponsored jointly with the Tennessee Department of Public Health and Vanderbilt University School of Medicine, will include: an ECG Workshop on Friday morning; Medical Symposium on Friday afternoon and evening; and, Cardiac Grand Rounds on Saturday morning.

Postgraduate Courses Scheduled by Vanderbilt University School of Medicine

Eleven courses in Continuing Education have been scheduled for the 1963-64 year. They are:

Oct. 23— Cerebral Palsy—Current Concepts in Therapy
Nov. 7— Common Obstetric Problems
Nov. 8-9— Cardiac Day (Middle Tennessee Heart Association)
Dec. 12— Recent Advances in Pediatric
Jan. 22-23— 1964 Hematology—Practical and Theoretical Aspects
Feb. 6— Disorders of Cervical Spine —Conservative and Operative Treatment and Methods of Evaluation
Feb. 20— Newer Experiences in Gastroenterology
March 10-11— Physiologic Principles in Cardiac Treatment
March 26— Urologic Problems in Gynecology
April 30— Management of Neurologic Problems in Office Practice
May 28— Treatment and Management of Mental Illness

You're Invited!

1ST ANNUAL

RURAL HEALTH CONFERENCE

Wednesday, Oct. 9, 1963—Knoxville, Tennessee

Jointly Sponsored By

Tennessee Medical Association • Tennessee Farm Bureau Federation
University of Tennessee Agricultural Extension Service

Every physician in Tennessee is invited to attend this state-wide conference on rural health. Seven excellent speakers will discuss topics concerning community health services, radiation effect on farm products, national legislation and others. The one-day conference will begin at 9:30 a.m. and adjourn at 3:30 p.m. Make your plans to attend now.



Conference Headquarters • Andrew Johnson Hotel

918 Gay St., N.W. • Knoxville, Tennessee

PLACEMENT SERVICE

The Placement Service of the Tennessee Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee, CY 1-4584.

Locations Wanted

A 30 year old Dermotologist would like clinical or associate practice, with part-time teaching, in West Tennessee town. Graduate of the University of Texas Medical Division; married. Episcopalian. Available immediately LW-447

◆

A 27 year old Ob-Gyn, native Tennessean, graduate of the University of Tennessee School of Medicine, now in residency training, would like clinical or associate practice in any area of Tennessee of 10,000, or less, population. Married. Methodist. Available January 1964. LW-471

◆

A general practitioner with surgery and anesthesia training, graduate of the Medical College of Georgia, would like to establish either solo or associate practice in Tennessee, any size town in any area. Residency training; now in practice. Wishes to relocate where educational opportunities are better. 43 years of age. Presbyterian. Available immediately. LW-472

◆

A general practitioner, with an interest in internal medicine, would like clinical or associate practice in East Tennessee city of 30,000 or less. Now in government medicine, but would like private practice. Age 29. Married. Baptist. Graduate of the Medical College of Georgia. One year's residency. Available now. LW-474

◆

A 31 year old Psychiatrist, now in residency training, would like clinical, institutional, or solo practice in any size community of Tennessee. Prefers Middle Tennessee, but will consider other sections. Graduate of Vanderbilt. Baptist. Married. Available now. LW-482

◆

A 32 year old Ob-Gyn, graduate of the University of Tennessee Medical School, would like clinical, associate, or group practice in any area of Tennessee, of 15,000 to 50,000 population. Methodist. Married. Now in residency training. Available September 1963. LW-483

◆

An Internist, graduate of the University of Illinois College of Medicine, would like clinical, associate or hospital practice in any section of Tennessee with 25,000 to 100,000 population. Age 34. Married. Baptist. Completing three years residency. Available September 1963. LW-484

◆

A 31 year old physician, now in residency, would like to establish clinical, assistant, or associate, or institutional practice of Urology in East or Middle Tennessee city of 25,000 plus. Graduate of University of Virginia. Married. Baptist. Available July 1964. LW-488

◆

A 31 year old General Practitioner, graduate of the University of Maryland Medical School, presently in military service, would like clinical practice in East Tennessee upon discharge. Married. Protestant. Available summer of 1964. LW-489

◆

A 31 year old graduate of the University of Tennessee would like associate, assistant, or clinical practice in internal medicine in any city of Middle Tennessee of 40,000 and over. Married. Catholic. Tennessee license. Residency. Now in military service. Available January 1, 1964. LW-494

Physicians Wanted

Well established, prosperous community, immediately adjacent to a large Middle Tennessee city, in need of general practitioner to establish solo or clinical practice. PW-168

◆

Physician in East Tennessee city of 2,000 would like associate general practitioner. Good housing facilities available. Good hospital 15 miles. PW-169

◆

Hospital in upper East Tennessee county, with population of over 30,000, would like a general surgeon to establish own surgical practice in area. Board qualified or Board preferred. Good industrial area with excellent schools. Near TVA lakes. PW-173

◆

FOR SALE: Medical practice and new, modern, centrally heated and air-conditioned, fully-equipped office in uptown location, of Middle Tennessee town of 10,000. Financing can be arranged. Owner desires to retire from private practice. PW-174

◆

A Middle Tennessee town of over 12,000 population would like physician as replacement in clinic. General practitioner with surgical experience preferred. Housing, office space, and equipment available. PW-188

◆

FOR RENT: Building for clinic in heavily populated section of large Middle Tennessee city. Ample space for one or two physicians. Parking space. PW-189

◆

General practitioner needed in East Tennessee town of over 800. Associate wanted. Hospital located in town. Office space and equipment available. PW-192

◆

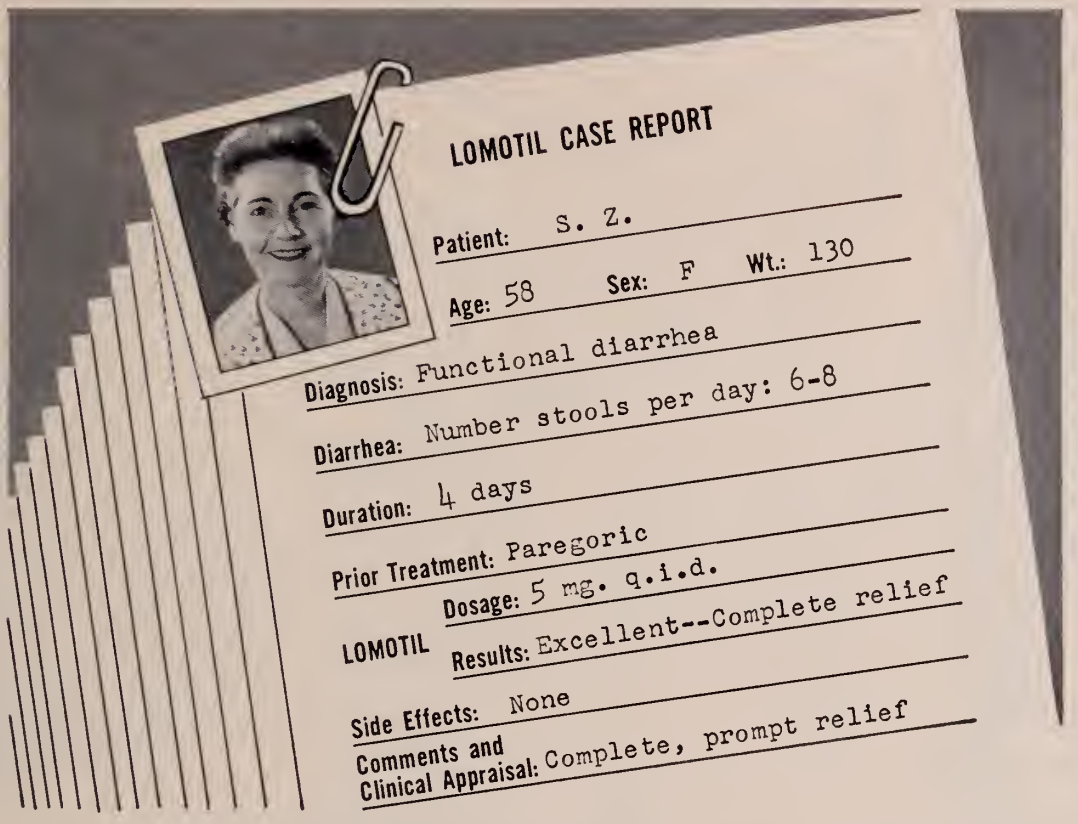
A physician needed in town in Middle Tennessee, near large metropolitan city, to operate small hospital. No other physician in area. General Practitioner, Ob-Gyn, Internist, or Surgeon desired. Hospital fully equipped. Near large Air Force Base. PW-198

◆

FOR SALE: Practice of Orthopedic surgeon, recently deceased, in large West Tennessee city. Completely furnished for orthopedic practice, including X-ray equipment. Terms can be arranged. PW-199

◆

General Practitioner or General Surgeon wanted as an associate or assistant for large clinic in Middle Tennessee city of over 10,000. Requirements: high morals; no drinking; must have residency training. PW-200



To control diarrhea . . . promptly

prescribe LOMOTIL® promptly

Each tablet and each 5 cc. of liquid contains: 2.5 mg. of diphenoxylate hydrochloride (Warning: may be habit forming) and 0.025 mg. of atropine sulfate

The direct, well-localized activity of Lomotil relieves spasm and cramping and provides prompt symptomatic control of virtually all diarrheas.

Numerous investigators have remarked on the effectiveness of Lomotil in patients with diarrhea uncontrolled by other agents.

Weingarten and his associates[1] found it "an excellent drug . . . efficacious where other drugs have failed. . . ."

Hock[2] obtained "results superior to prior medications in 68.3 per cent of 41 patients."

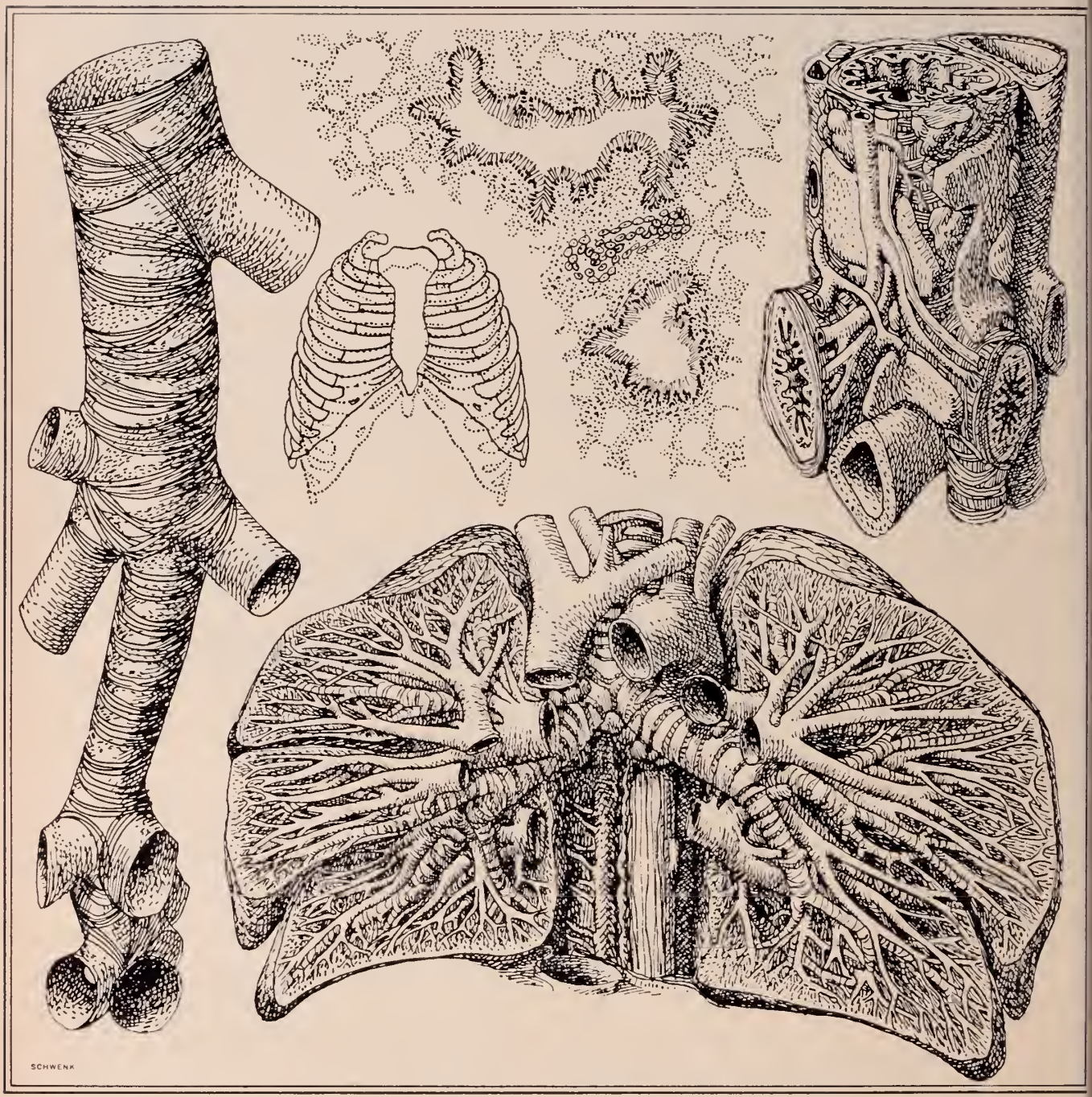
Since Lomotil controls diarrhea so consistently, it is only rational to prescribe Lomotil *before* other agents have a chance to prove inadequate. To control diarrhea promptly, prescribe Lomotil promptly.

Lomotil is an exempt narcotic, its abuse liability being comparable to that of codeine. Recommended dosages should not be exceeded. Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness and insomnia. Lomotil should be used with caution in patients with impaired liver function and in patients taking addicting drugs or barbiturates. Lomotil is brand of diphenoxylate hydrochloride with atropine sulfate; the subtherapeutic amount of the latter is added to discourage deliberate overdosage.

1. Weingarten, B.; Weiss, J., and Siman, M.: A Clinical Evaluation of a New Antidiarrheal Agent, Amer. J. Gastroent. 35:628-633 (June) 1961. 2. Hack, C. W.: Relief of Diarrhea with Diphenoxylate Hydrochloride (Lomotil), J. Med. Ass. Georgia 50:485-488 (Oct.) 1961.

G. D. SEARLE & CO.

Research in the Service of Medicine


SCHWENK

Air Rights

With ARISTOCORT Triamcinolone, many asthmatic patients obtain early gratifying relief of wheezing, dyspnea and spasmodic coughing. And maintenance dosage in many cases can be surprisingly low—*often as little as a single 2 mg. tablet per day.* Yet it provides this symptomatic control—which may enable many patients to continue their customary livelihoods or regular household activities—with only minimal interference with other metabolic functions. In this respect, ARISTOCORT Triamcinolone is distinguished compared with other corticosteroids, old and new. Typical steroid problems of sodium retention and edema, euphoria, or voracious appetite and excessive weight gain rarely occur.

ARISTOCORT Triamcinolone is indicated when anti-inflammatory, anti-allergic action of glucocorticoids is desired. SIDE EFFECTS of glucocorticoids generally: Cushingoid effects, hirsutism, leucopenia, purpura, vertigo, fatigue, increased hyperglycemia, osteoporosis, gastrointestinal hemorrhage, cataracts, growth suppression in children and increased intracranial pressure. Other glucocorticoid effects thought more likely to occur with triamcinolone: reversible weakness of muscles and flushing of face.

PRECAUTIONS: ARISTOCORT Triamcinolone should be used with extreme caution in viral infection, particularly herpes simplex and chicken pox, in tubercular or fungal infection, in active peptic ulcer, acute glomerular nephritis or myasthenia gravis.

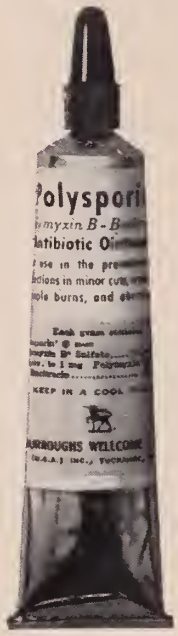
FORMULA—Tablets (scored) containing 1 mg., 2 mg. or 4 mg. of triamcinolone. Syrup—2 mg. of triamcinolone diacetate per 5 cc. (5 mg. of triamcinolone diacetate is equivalent to 4 mg. of triamcinolone).

Aristocort®
Triamcinolone

Maximum steroid benefits with minimum steroid penalty

Lederle LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York
162-R3 (DC31-S)

in treating topical infections, no need to sensitize the patient



USE 'POLYSPORIN'® brand POLYMYXIN B-BACITRACIN ANTIBIOTIC OINTMENT

broad-spectrum antibiotic therapy with minimum risk of sensitization

Caution: As with other antibiotic products, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **Supplied:** in ½ oz. and 1 oz. tubes.

Complete literature available on request from Professional Services Dept. PML.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES AND ADDICTION PROBLEMS

James A. Becton, M.D.

James K. Ward, M.D.

P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

Phones WOrth 1-1151



Notable increase in vigor, strength and sense of well-being

NSTROL (stanozolol-Winthrop), a heterocyclic steroid, combines ent anabolic effects with outstanding tolerance, stimulates appe- and promotes weight gain ... restores a positive metabolic balance. ounteracts the catabolic effects of concomitant corticosteroid or TH therapy. WINSTROL (stanozolol-Winthrop) rebuilds body tissue le it builds strength, confidence and a sense of well-being in con- ons associated with excess protein breakdown, insufficient protein ake and inadequate nitrogen and mineral retention.

e Effects and Precautions: Prolonged administration can produce d hirsutism, acne or voice change. In an occasional patient, edema been observed and in young women the menstrual periods have en milder and shorter. These side effects are reversible, and pa- nts receiving prolonged treatment should be examined and ques- tioned periodically so that, should side effects appear, the dosage may be reduced or administration of the drug discontinued for a time. In patients with impaired cardiac and renal function, there is the pos- sibility of sodium and water retention. Liver function tests may reveal an increase in bromsulphalein retention, particularly in elderly pa- tients. In such cases, therapy should be discontinued. Although it has been used in patients with cancer of the prostate, its mild androgenic activity is considered by some investigators to be a contraindication.

Dosage: Usual adult dose, 1 tablet t.i.d. before or with meals; young women, 1 tablet b.i.d.; children (school age): up to 1 tablet t.i.d.; chil- dren (pre-school age): ½ tablet b.i.d. Available as scored tablets of 2 mg. in bottles of 100. For best results, administer with a high protein diet.

WINTHROP LABORATORIES, NEW YORK 18, N. Y.

larked improvement in appetite / Measurable weight gain Winthrop



PHYSICIANS MUTUAL INSURANCE COMPANY
(FORMERLY PHYSICIANS CASUALTY ASSOCIATION AND PHYSICIANS HEALTH ASSOCIATION)
115 SOUTH 42ND STREET OMAHA 31, NEBRASKA

Something "New"

For

Doctors

Protect Your Most Valuable Asset

"Your Time"

Our New Sickness and Accident Protection Policy
Pays the Amount You Select up to $500.00 per Month
For Loss of Time Caused by Accident or Sickness

Insuring Physicians & Dentists for 60 years.

PHYSICIANS MUTUAL INSURANCE COMPANY

COUPON

Physicians Mutual Insurance Co.
115 So. 42nd St. Omaha 31, Nebraska
"Offering Protection to Physicians and Dentists
Since 1902"

Name_____ Age_____

Address_____ City_____

SAINT ALBANS

PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

Telephone: 639-2482

STAFF

James P. King, M.D., Director

William D. Keck, M.D.
Clinical Director
James K. Morrow, M.D.
Silas R. Beatty M.D.
Jack M. Rogers, M.D.

Edward W. Gamble, III, M.D.
Morgan E. Scott, M.D.
Jean M. Glasgow, M.D.
J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.
Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: 325-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Malcolm G. MacAulay, M.D.
Phone: 253-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
Richard D. Kitching, M.D.
Phone: 344-3578

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 1090

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

Today's Health

A GOOD BUY IN PUBLIC RELATIONS

Place it in your reception room

Today's Health is published for the American Family by the American Medical Association, 535 N Dearborn St.—Chicago 10, Illinois

Give your subscription order to a member of your local Medical Society Woman's Auxiliary, who can give you Special Reduced Rates.

BRAWNER HOSPITAL, INC.

(Established 1910)

2932 South Atlanta Road, Smyrna, Georgia

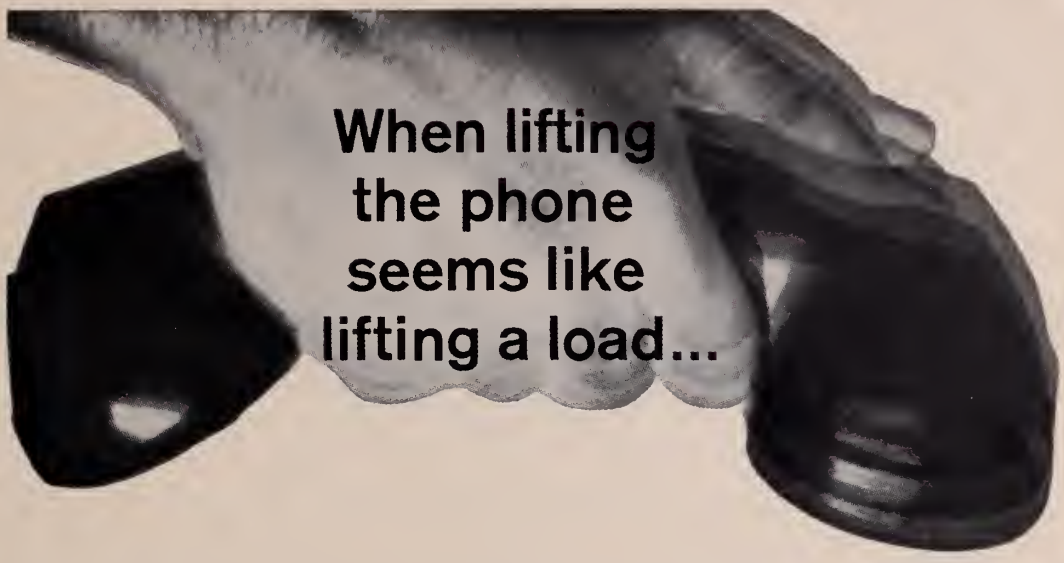
FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION

MODERN FACILITIES

Jas. N. Brawner, Jr., M.D.
Medical Director

Aloysius I. Miller, M.D.
Mark A. Gould, M.D.

Phone HEmlock 5-4486



in chronic bronchitis and emphysema

ISUPREL® BRAND OF ISOPROTERENOL hydrochloride hydrochloride

MISTOMETER® Q.I.D.

ISUPREL (isoproterenol/Winthrop) "...can increase breathing efficiency in pulmonary emphysema."[1] The patient with chronic obstructive pulmonary disease "...should use the bronchodilator four times daily whether or not he experiences episodes of bronchospasm."[2]

Use of the Mistometer eases breathing by relaxing bronchospasm, and aiding productive cough. "Of the aerosol bronchodilators, ISUPREL (isoproterenol/Winthrop) seems to be the best...."[3] Conscientious use q.i.d. improves vital capacity and exercise tolerance.

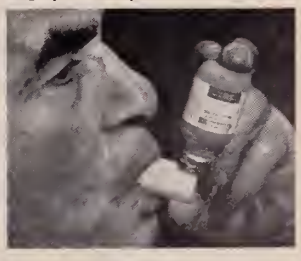
The Mistometer brings new efficacy and convenience—enables patients to maintain treatment wherever they are.

With use of ISUPREL (isoproterenol/Winthrop), occasionally tachycardia, palpitation, nervousness, nausea and vomiting or headache may occur, especially with excessive dosage. Adjust dosage carefully in patients with hyperthyroidism, acute coronary disease, cardiac asthma or limited cardiac reserve, and in persons sensitive to sympathomimetic amines.

Caution: Epinephrine should not be administered with ISUPREL (isoproterenol/Winthrop) as both drugs are direct cardiac stimulants and their combined effects may induce serious arrhythmia. If desired they may, however, be alternated, provided an interval of at least four hours has elapsed.

Dosage: Two inhalations at least one minute apart four times daily, regularly. Inhalations may be taken more often if indicated.

Available as ISUPREL HCl (isoproterenol HCl/Winthrop) Mistometer—single unit combining plastic nebulizer and ISUPREL (isoproterenol/Winthrop) solution 1:400—or 0.25 per cent w/w (=2.8 mg. per ml.), and includes alcohol, 33 per cent; bottles of 15 ml.



1. Reeves, J. E.: *M. Times* 90:512, May, 1962. 2. Williams, M. H., Jr.: *M. Sc.* 11: 433, March 19, 1962. 3. Peckenschneider, L. E.: *J. Kansas M. Soc.* 56:486, Sept., 1955.

Winthrop Laboratories, New York 18, N.Y.

Winthrop

Tennessee Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

E. Dan Smith, II

Underwritten By

Commercial Insurance Company

Newark, New Jersey

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply & Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601

Now Available

TO MEMBERS OF THE TENNESSEE MEDICAL ASSOCIATION

Who can qualify for this insurance

$500.00 Per month DISABILITY INCOME PLAN—NON CANCELLABLE

Pays LIFETIME for accident—10 YEARS CERTAIN FOR ILLNESS

DOUBLE BENEFITS FOR ANY THREE MONTH PERIOD OF HOSPITALIZATION

GENERAL PROVISIONS:

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.

Complete aviation coverage on both Monthly Benefit and Principal Sum both private and commercial flying

Monthly benefits payable from the first day of disability

May also be issued with elimination periods if desired

Individually NON CANCELLABLE except for—

1. Non Payment of Premium within the grace period
2. Retired from practice

Guaranteed renewable to age 70. Renewable thereafter at the option of the Company

For further information please contact

Sovereign States Insurance Company

1808 West End Avenue

Post Office Box 767

Nashville, Tennessee

Carl Yeakey, Director of Professional Services



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS and SYMPTOMS:** Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS:** Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT:** Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN
1104 Sudekum Bldg.
Nashville, Tenn.

SETH W. SIZER
1211 James Bldg.
Chattanooga, Tenn.

THERON M. LEMLY
1309 Poplar Ave.
Memphis, Tenn.



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE MARK



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz can 75c | Pt. bottle with dispensing can $2.50 | Qt. bottle with dispensing can $4.00

Plus post.

White Surgical Supply Co.

SURGICAL SUPPLIES & ACCESSORIES

515 West Church Ave. Knoxville 7, Tennessee

Telephone 3-1186

For Sale at a Reasonable Price:

1—Used Westinghouse Fluoradex 500 MA radiographic and fluoroscopic unit complete, including cassette with Bucky, and 1—Used Westinghouse 250 KV constant potential therapy unit complete with cone set. For further details write, or call, Acuff Clinic Association, 606 Main, S.W., Knoxville, Tennessee. Phone 524-0791.

Practice for Sale

Active and high income practice in Memphis, Tennessee, of Orthopedic Surgeon recently deceased. Fully equipped office with former personnel available. Unusual opportunity. Contact,

Robert R. Krivcher, 707 Home Federal Building, Memphis, Tennessee.
Phone 525-6434.

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY

Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
50/150	84.67	202.61
100/300	92.29	220.83
200/300	96.32	230.48
300/600	112.80	253.20
500/1 Million	132.83	278.85
1 Million/1 Million	139.55	294.93

X-RAY—RADIUM OR SHOCK THERAPY

5/15	89.60	152.00
50/150	169.34	287.28
100/300	184.58	313.12
200/300	192.64	326.80
300/600	213.60	354.00
500/1 Million	237.66	383.68
1 Million/1 Million	251.10	406.48

1. Partnership liability, increase premium for each partner by 20%
2. Anesthesiologists take Physicians rates.
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Other limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

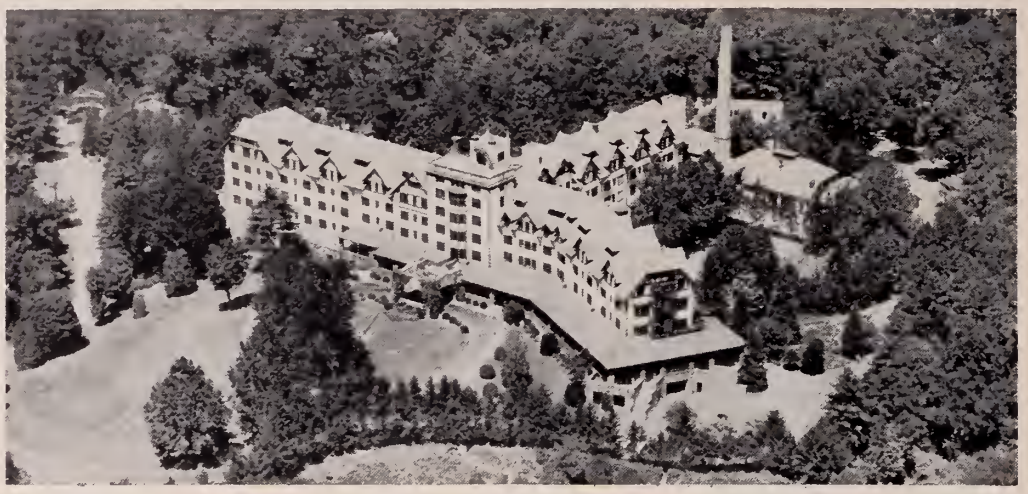
Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability

*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.

APPALACHIAN HALL
Established 1916

Asheville North Carolina



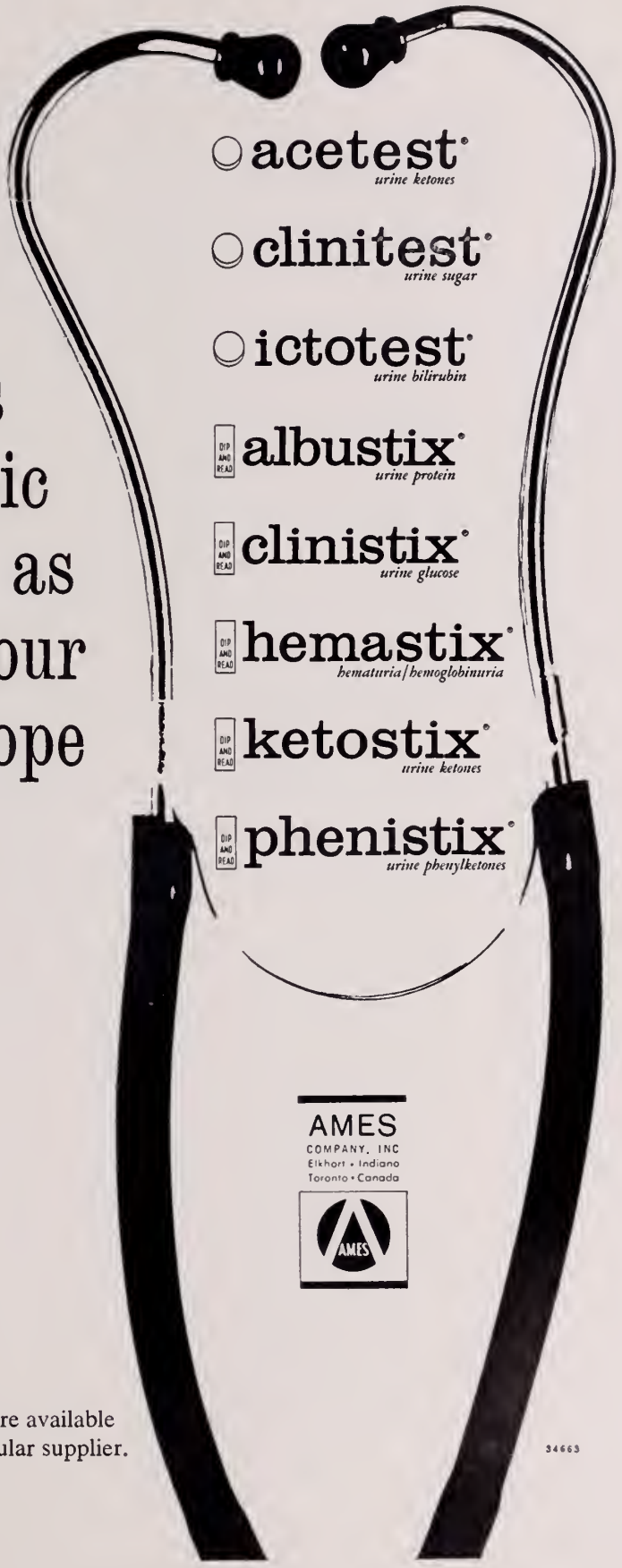
An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D. MARK A. GRIFFIN, SR., M.D.
ROBERT A. GRIFFIN, M.D. MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

Acuff Clinic Association	XLVI	Lilly, Eli and Co.	I, XXXII
American Cyanamid Company	X, XI, XXVII, XXXIV, XXXV	Mayrand, Inc., Pharmaceuticals	XII
		Mutual Benefit Life Ins. Co.	XLV
American Tobacco Co.	XXVIII	Nashville Surgical Supply Co., Inc.	XLIII
Ames Co., Inc.	XLIX	Parke-Davis and Company	II, III
Appalachian Hall	XLVIII	Physicians Mutual Ins. Co.	XXIV, XXXVIII
Bayer, Co., The	XVII	Robins, A. H. Co., Inc.	XV
Blood Bank Foundation	XXVI	Roche Laboratories	L
Brawner Hospital, Inc.	XL	Rorer, William H.	VII
Brayten Pharmaceutical Company	XXIII	St. Albans	XXXIX
Burroughs Wellcome & Co.	VI, XXXVI	Searle, G. D. & Co.	XXXIII
Chatham Pharmaceuticals, Inc.	XXX	Smith, Kline & French Laboratories	XVIII
City View Sanitarium	XXIV	Smith, Reed, Thompson & Ellis Co.	XLII
Coca-Cola	XLVI	Sovereign States Ins. Co.	XLIV
Endo Laboratories	XXV	Squibb	XXII
Farringer & Company	XLVII	Tafel Surgical Supply Co., Inc.	XXIV
First Texas Pharmaceuticals	XVI	Tennessee Valley Medical Assn.	XIII
Glenbrook Laboratories	XXXI	Today's Health	XL
Guild Opticians	XL	Wallace Laboratories	VIII, IX, XIV, XX, XXI, XXVI, XXIX
Hill Crest Sanitarium	XXXVI		
Kay Surgical, Inc.	XXX	White Surgical Supply Co.	XLVI
Krivcher, Robert R	XLVI	Winthrop Laboratories	V, XIX, XXXVII, XLI



urine tests as basic as your stethoscope

acetest® urine ketones

clinitest® urine sugar

ictotest® urine bilirubin

DIP AND READ albustix® urine protein

DIP AND READ clinistix® urine glucose

DIP AND READ hemastix® hematuria/hemoglobinuria

DIP AND READ ketostix® urine ketones

DIP AND READ phenistix® urine phenylketones

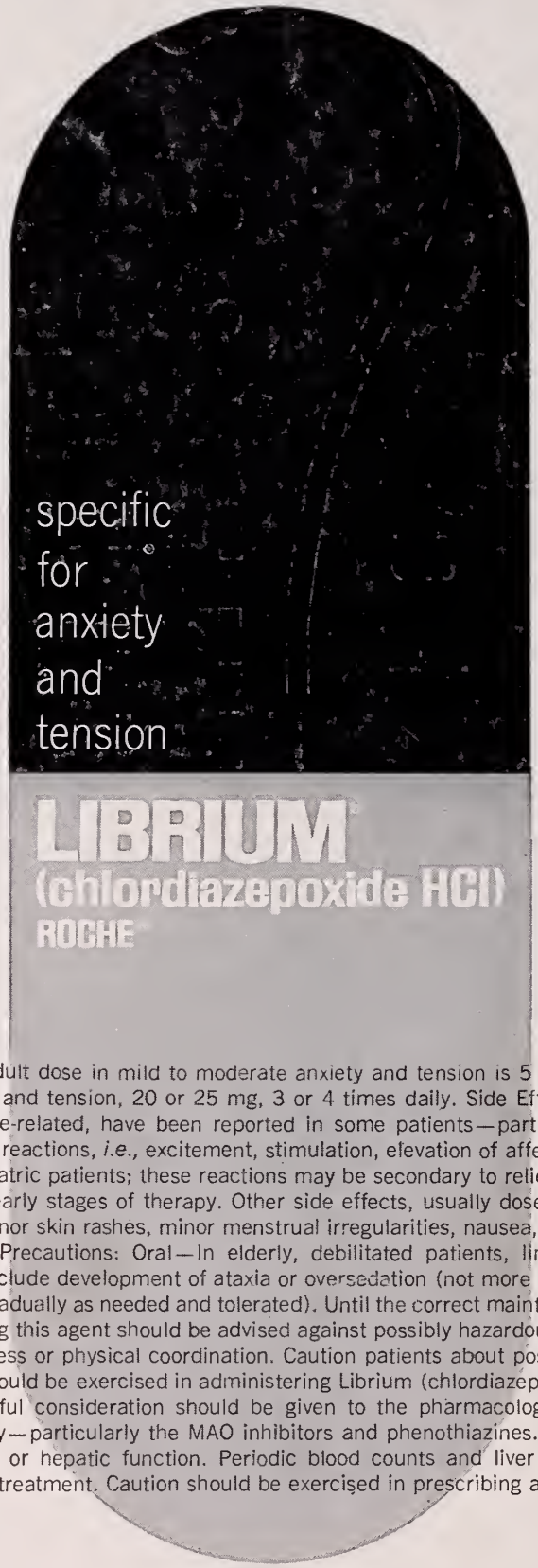
AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

AMES

AMES products are available through your regular supplier.

34663

ROCHE



Dosage: Oral—Usual adult dose in mild to moderate anxiety and tension is 5 or 10 mg, 3 or 4 times daily; in severe anxiety and tension, 20 or 25 mg, 3 or 4 times daily. Side Effects: Oral—Drowsiness and ataxia, usually dose-related, have been reported in some patients—particularly the elderly and debilitated. Paradoxical reactions, *i.e.,* excitement, stimulation, elevation of affect and acute rage, have been reported in psychiatric patients; these reactions may be secondary to relief of anxiety and should be watched for in the early stages of therapy. Other side effects, usually dose-related, have included isolated instances of minor skin rashes, minor menstrual irregularities, nausea, constipation, increased and decreased libido. Precautions: Oral—In elderly, debilitated patients, limit dosage to smallest effective amount to preclude development of ataxia or oversedation (not more than 10 mg per day initially, to be increased gradually as needed and tolerated). Until the correct maintenance dosage is established, patients receiving this agent should be advised against possibly hazardous procedures requiring complete mental alertness or physical coordination. Caution patients about possible combined effects with alcohol. Caution should be exercised in administering Librium (chlordiazepoxide HCl) to addiction-prone individuals. Careful consideration should be given to the pharmacology of any agents to be employed concomitantly—particularly the MAO inhibitors and phenothiazines. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests may be advisable in protracted treatment. Caution should be exercised in prescribing any therapeutic agent to pregnant patients.

THE JOURNAL OF THE

TENNESSEE MEDICAL ASSOCIATION

TENNESSEE ACADEMY OF GENERAL PRACTICE
15th Annual Scientific Assembly
Nashville Municipal Auditorium
October 24-25, 1963

First Tennessee Congress on Mental Illness and Health
Hermitage Hotel, Nashville
November 13-14

MID-SOUTH MEDICAL ASSEMBLY
Peabody Hotel, Memphis
February 11-14, 1964

OCTOBER, 1963

Volume 56 **Number 10**

le of Contents on Page IV
ex to Advertisers on Page LXII

The Lente Insulins

- wide range of Insulin activity
- free of modifying protein

Additional information available upon request.
Eli Lilly and Company, Indianapolis 6, Indiana.

Lilly

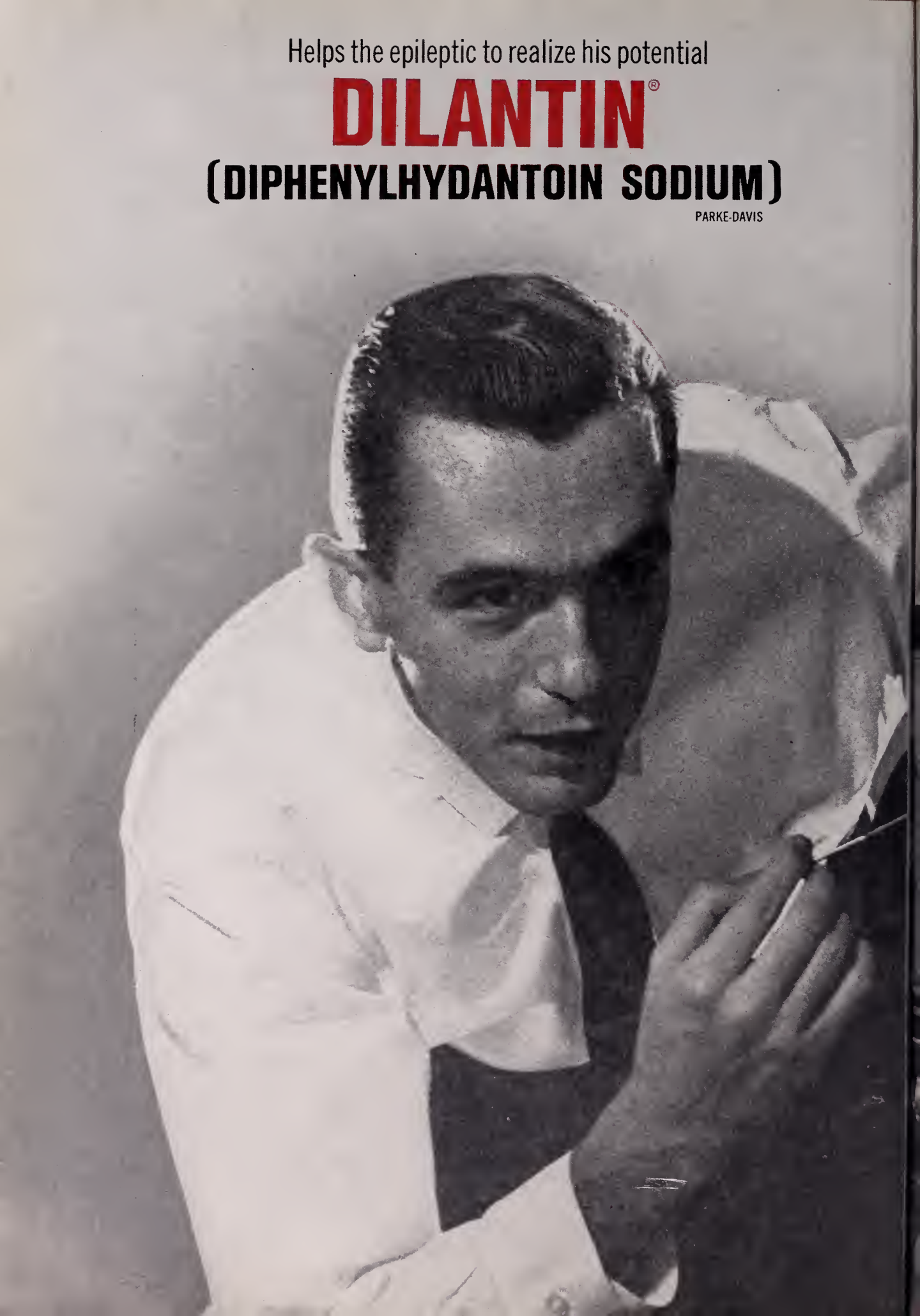
300026

Helps the epileptic to realize his potential

DILANTIN®

(DIPHENYLHYDANTOIN SODIUM)

PARKE-DAVIS



"The most effective form of emotional approach remains the demonstration to the patient that the seizure phenomena can be adequately controlled with anticonvulsant medication."[1]

At present, diphenylhydantoin sodium is generally regarded as the standard in anticonvulsant medication because of its effectiveness in controlling grand mal and psychomotor seizures.[2-10] It possesses a wide margin of safety, and incidence of side effects is minimal.[4] With this agent, oversedation is not a problem.[3] Moreover, its use is often accompanied by improvement in the patient's memory, intellectual performance, and emotional stability.[11]

Indications: Grand mal epilepsy and certain other convulsive states.

Precautions: Toxic effects are infrequent: allergic phenomena such as polyarthropathy, fever, skin eruptions, and acute generalized morbilliform eruptions with or without fever. Rarely, dermatitis goes on to exfoliation with hepatitis, and further dosage is contraindicated. Eruptions then usually subside. Though mild and rarely an indication for stopping dosage, gingival hypertrophy, hirsutism, and excessive motor activity are occasionally encountered, especially in children, adolescents, and young adults. During initial treatment, minor side effects may include gastric distress, nausea, weight loss, transient nervousness, sleeplessness, and a feeling of unsteadiness. All usually subside with continued use. Megaloblastic anemia has been reported. Nystagmus may develop. Nystagmus in combination with diplopia and ataxia indicates dosage should be reduced. Periodic examination of the blood is advisable.

DILANTIN Sodium (diphenylhydantoin sodium) is available in several forms including Kapseals,® 0.03 Gm. and 0.1 Gm., bottles of 100 and 1,000.

REFERENCES: (1) Hammill, J. F.: J. Chron. Dis. **8**:448, 1958. (2) Roseman, E.: Neurology **11**:912, 1961. (3) Bray, P. F.: Pediatrics **23**:151, 1959. (4) Chao, D. H.; Druckman, R., & Kellaway, P.: Convulsive Disorders of Children, Philadelphia, W. B. Saunders Company, 1958, p. 120. (5) Crawley, J. W.: M. Clin. North America **42**:317, 1958. (6) Livingston, S.: The Diagnosis and Treatment of Convulsive Disorders in Children, Springfield, Ill., Charles C Thomas, 1954, p. 190. (7) Ibid.: Postgrad. Med. **20**:584, 1956. (8) Merritt, H. H.: Brit. M. J. **1**:666, 1958. (9) Carter, C. H.: Arch. Neurol & Psychiat. **79**:136, 1958. (10) Thomas, M. H., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, The Williams & Wilkins Company, 1956, pp. 37-48. (11) Goodman, L. S., & Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 2, New York, The Macmillan Company, 1955, p. 187.

14863

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan



The Journal of the TENNESSEE MEDICAL ASSOCIATION

Published Monthly

By Tennessee Medical Association

OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE

Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 10

OCTOBER, 1963

Per Year, $5.00
Single Copy, 50 Cents

Published Monthly

Contents

Hypothyroidism and Myxedema, JOHN W. RUNYAN, M.D., Memphis, Tenn. 391

A Timely Reminder: Anaphylaxis Associated With Use of Sclerosing Agents, BERNARD M. WEINSTEIN, M.D., Nashville, Tenn. 395

Multiple Myeloma in Brothers, LAURENCE A. GROSSMAN, FRED D. OWNBY, MILTON GROSSMAN, HERMAN J. KAPLAN, and LAWRENCE K. WOLFE, M.D., Nashville, Tenn. 398

Presacral or Retrorectal Tumors, JOSEPH J. DODDS, M.D., Chattanooga, Tenn. 401

Clinical Notes from the Tennessee Heart Association
The Problem of Correct Diagnosis in Rheumatic Fever, JOSEPH A. LITTLE, M.D., Nashville, Tenn. 404

Staff Conference 406

Clinicopathologic Conference 410

President's Letter 415

Editorial 416

Deaths 418

Programs and News of Medical Societies 418

National News 418

Medical News in Tennessee 420

Personal News 422

Our Mail Box 423

Announcements 423

Placement Service 426

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 12, Tennessee.

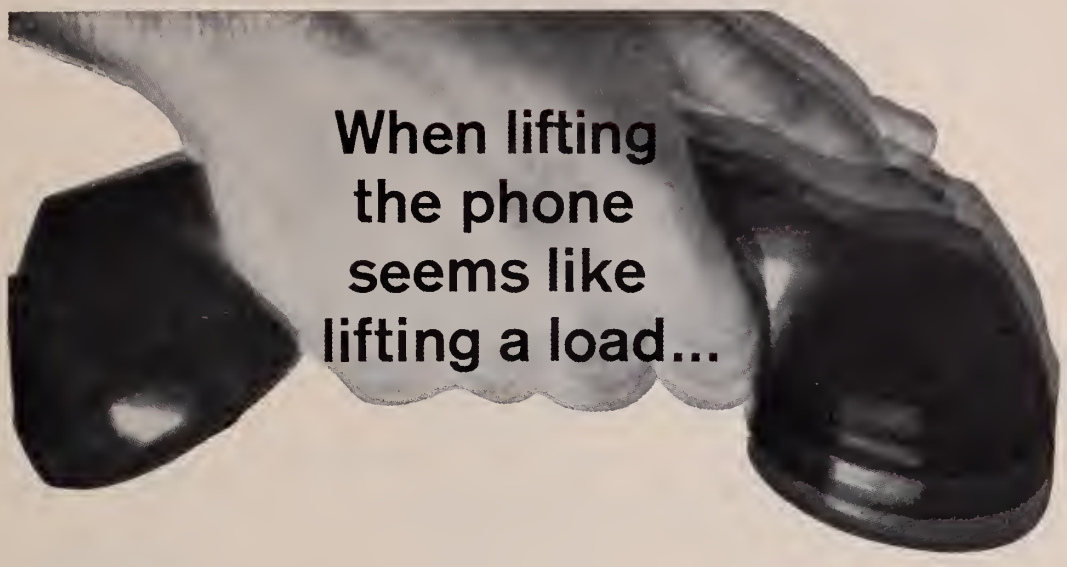
Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
R. H. KAMPMEIER, M.D., Editor
This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein
Copyright, 1963, by the Tennessee Medical Journal



in chronic bronchitis and emphysema

ISUPREL® BRAND OF ISOPROTERENOL hydrochloride hydrochloride

MISTOMETER® Q.I.D.

ISUPREL (isoproterenol/Winthrop) "...can increase breathing efficiency in pulmonary emphysema."[1] The patient with chronic obstructive pulmonary disease "...should use the bronchodilator four times daily whether or not he experiences episodes of bronchospasm."[2]

Use of the Mistometer eases breathing by relaxing bronchospasm, and aiding productive cough. "Of the aerosol bronchodilators, ISUPREL (isoproterenol/Winthrop) seems to be the best...."[3] Conscientious use q.i.d. improves vital capacity and exercise tolerance.

The Mistometer brings new efficacy and convenience—enables patients to maintain treatment wherever they are.

With use of ISUPREL (isoproterenol/Winthrop), occasionally tachycardia, palpitation, nervousness, nausea and vomiting or headache may occur, especially with excessive dosage. Adjust dosage carefully in patients with hyperthyroidism, acute coronary disease, cardiac asthma or limited cardiac reserve, and in persons sensitive to sympathomimetic amines.

Caution: Epinephrine should not be administered with ISUPREL (isoproterenol/Winthrop) as both drugs are direct cardiac stimulants and their combined effects may induce serious arrhythmia. If desired they may, however, be alternated, provided an interval of at least four hours has elapsed.

Dosage: Two inhalations at least one minute apart four times daily, regularly. Inhalations may be taken more often if indicated.

Available as ISUPREL HCl (isoproterenol HCl/Winthrop) Mistometer—single unit combining plastic nebulizer and ISUPREL (isoproterenol/Winthrop) solution 1:400—or 0.25 per cent w/w (=2.8 mg. per ml.), and includes alcohol, 33 per cent; bottles of 15 ml.

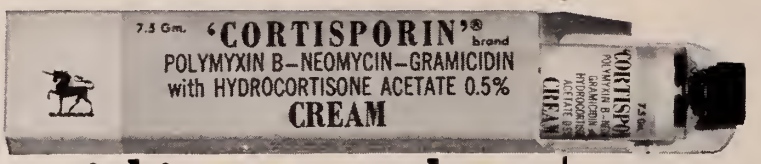


1. Reeves, J. E.: *M. Times* 90:512, May, 1962. 2. Williams, M. H., Jr.: *M. Sc.* 11: 433, March 19, 1962. 3. Peckenschneider, L. E.: *J. Kansas M. Soc.* 56:486, Sept., 1955.

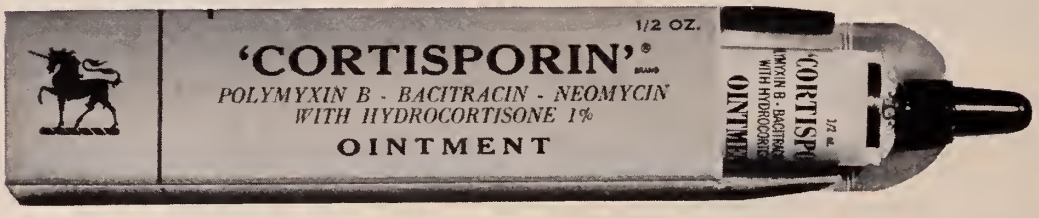
Winthrop Laboratories, New York 18, N.Y.

Winthrop

CHOOSE THE PRODUCT TO FIT THE NEED



a new vanishing cream base



a special low melting point base

anti-inflammatory
bactericidal
antipruritic
rarely sensitizing

CREAM—*Ingredients:* Each gram contains 'Aerosporin'® brand Polymyxin B* Sulfate 10,000 Units; Neomycin Sulfate (equivalent to 3.5 mg. Neomycin Base) 5.0 mg.; Gramicidin 0.25 mg.; Hydrocortisone Acetate 5.0 mg. (0.5%).

In a smooth, white, water-washable vanishing cream base with a pH of approximately 5.0. Inactive ingredients: liquid petrolatum, white petrolatum, propylene glycol, polyoxyethylene polyoxypropylene compound, emulsifying wax, distilled water, and 0.25% methylparaben as preservative.

Available: In tubes of 7.5 Grams.

OINTMENT—*Ingredients:* Each gram contains 'Aerosporin'® brand Polymyxin B* Sulfate 5,000 Units; Zinc Bacitracin 500 Units; Neomycin Sulfate 5 mg. (equivalent to 3.5 mg. Neomycin Base); Hydrocortisone 10 mg. (1%).

In a special white petrolatum base.

Available: In tubes of ½ oz. and ⅛ oz.

*U.S. Patent Nos. 2,565,057–2,695,261

Indications: Wherever inflammation or infection occurs and is accessible for topical therapy.

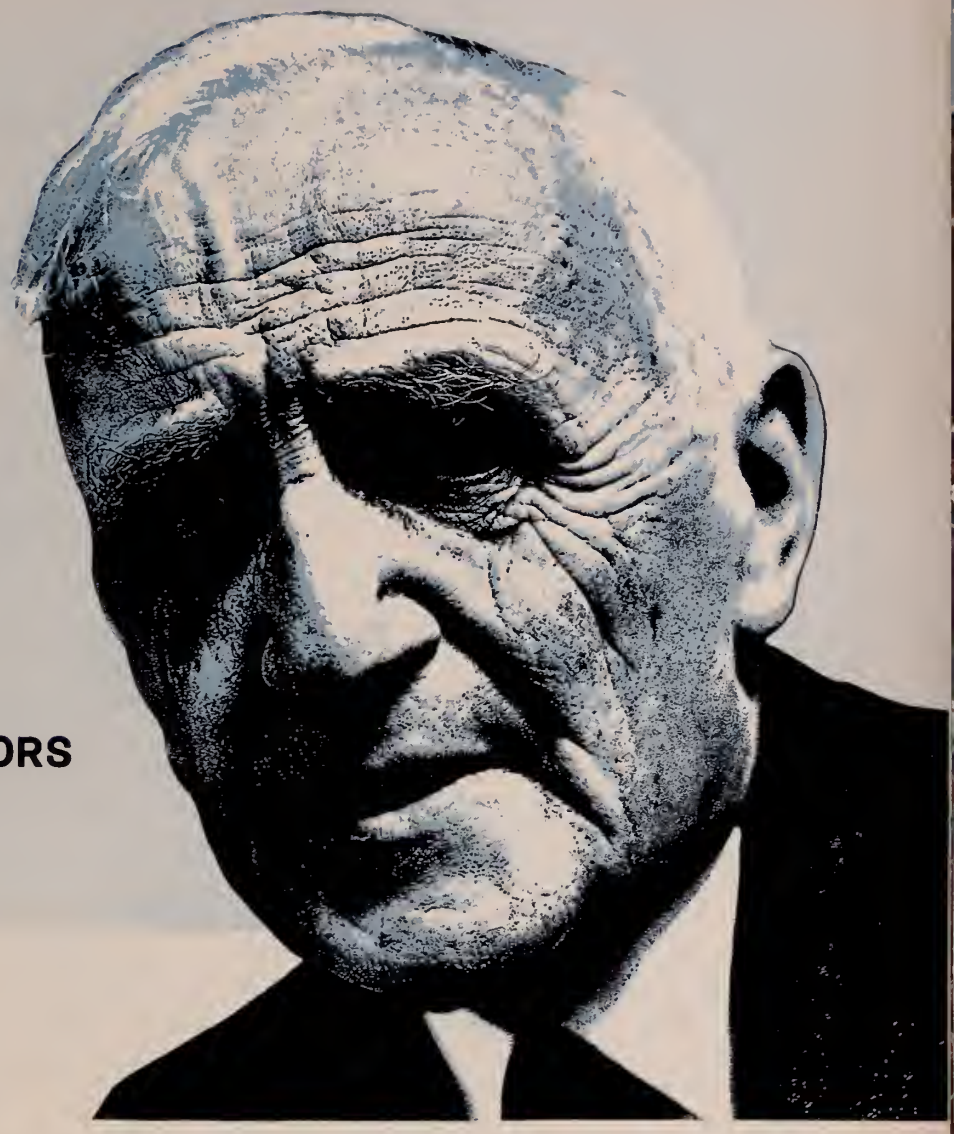
Contraindications: These drugs are contraindicated in tuberculous, fungal or viral lesions (herpes simplex, vaccinia and varicella).

Caution: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

Complete literature available on request from Professional Services Dept. PML.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

For your elderly arthritic patients



AN EFFECTIVE GERIATRIC ANTIARTHRITIC WITH ESSENTIAL SAFETY FACTORS

safely indicated – even in the presence of **HYPERGLYCEMIA**

PABALATE-SF may be prescribed with confidence to elderly arthritics—even in the presence of hyperglycemia—because of its widely recognized **Safety Factors:** (1) its potassium salts cannot contribute to sodium retention; (2) its enteric coating assures gastric tolerance; and (3) its use is free from the serious reactions in diabetic patients sometimes noted during therapy with steroids or pyrazolone derivatives. As for effectiveness, it has been found "superior to aspirin in the treatment of chronic rheumatic disorders."[1]

Each persian-rose enteric-coated tablet contains: potassium salicylate, 0.3 Gm.; potassium para-aminobenzoate, 0.3 Gm.; ascorbic acid, 50 mg.

1. Ford, R. A., and Blanchard, K. P.: J.-Lancet 78:185, 1958.

Precaution: Occasionally, mild salicylism may occur, but this responds readily to dosage adjustment. In the presence of severe renal impairment, care should be taken to avoid accumulation of salicylate and PABA. Supply: Bottles of 100 and 500 enteric-coated tablets.

Pabalate®-SF

Robins

(the new, convenient way to prescribe Pabalate-Sodium Free)

A. H. ROBINS COMPANY, INC., RICHMOND, VIRGINIA

The one tranquilizer that

BELONGS IN EVERY PRACTICE

it's versatile: The years have proved that 'Miltown' (meprobamate) is the one tranquilizer that is helpful in almost every aspect of daily practice. Virtually any of your patients, regardless of age, can be given the drug with confidence, either as a primary treatment or as an adjunct to other therapy. **Outstanding record of safety:** Over eight years of clinical use among millions of patients throughout the world — plus more than 1500 published reports covering the use of the drug in almost every field of medicine — support your prescriptions for 'Miltown' (meprobamate). This is why it *"belongs in every practice."*

dependable: 'Miltown' (meprobamate) is an established drug. There are no surprises in store for you or your patient. You can depend on it to help your patients through periods of emotional distress — and to help maintain their emotional stability.

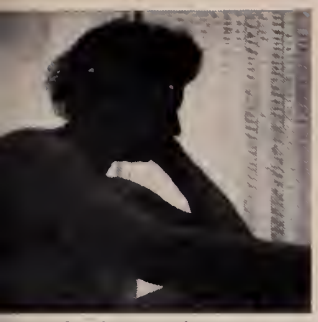
easy to use: Because 'Miltown' (meprobamate) is compatible with almost any other kind of drug therapy, you'll find it fits in easily with any program of treatment you are now using. It will not, therefore, complicate treatment of patients seen in clinical practice.

BRIEF SUMMARY: *Indications:* Anxiety and tension states, and all conditions in which anxiety and tension are symptoms. *Side Effects:* Slight drowsiness may occur and, rarely, allergic or idiosyncratic reactions, generally developing after 1-4 doses of the drug. *Contraindications:* Previous allergic or idiosyncratic reactions to meprobamate contraindicate subsequent use. *Precautions:* Should administration of meprobamate cause drowsiness or visual disturbances, the dose should be reduced. Operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Prescribe cautiously and in small quantities, to patients with suicidal tendencies. Massive overdosage may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after prolonged use at high dosage. *Complete product information available to physicians on request.*

USUAL ADULT DOSAGE: 1 or 2 400 mg. tablets t.i.d.

SUPPLIED: 400 mg. scored tablets, 200 mg. coated tablets.

©M-9694



The insomniac



The tense, nervous patient



The heart-disease patient



The surgical patient



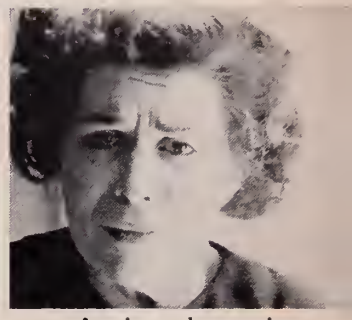
The girl with dermatosis



Tension headache



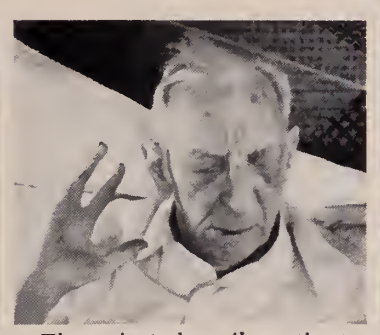
The woman in menopause



Anxious depression



Premenstrual tension



The agitated senile patient



The alcoholic



The problem child

the original brand of
meprobamate

Miltown®



The G.I. patient

WALLACE LABORATORIES
Cranbury, N.J.

there is nothing "new" about Thorazine®



brand of
chlorpromazine

In the nine years since it became available to American physicians, Thorazine (chlorpromazine, SK&F) has been more widely used, more thoroughly investigated and more extensively documented than any other agent of its type.

Its actions, effects—and side effects—are well known throughout the medical profession. Its efficacy has been clearly demonstrated. And when properly used, its advantages far outweigh any possible disadvantages.

This is why there is nothing "new" about Thorazine (chlorpromazine, SK&F). This is why it remains the first choice in many conditions—and the standard against which other agents are inevitably compared.

This is why it is one of the fundamental drugs in medicine.

SMITH KLINE & FRENCH
LABORATORIES, PHILADELPHIA

SK&F

Important news in cardiac therapy

Two new clinical reports document successful long-term treatment of ischemic heart disease with Persantin,® brand of dipyridamole

See next 3 pages

Study 1.
Griep,A.H.: Long-term Therapy of Ischemic Heart Disease With Oral Dipyridamole:
A Report of Fifty Cases. Angiology 14:484, 1963.

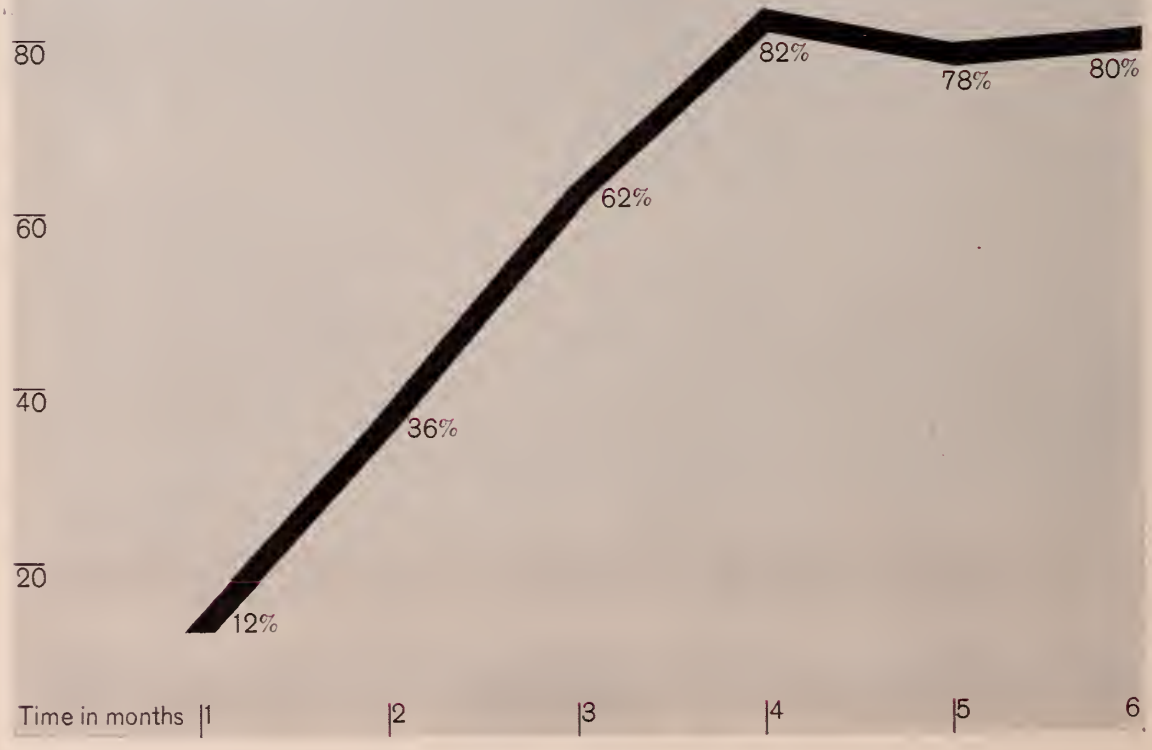
Persantin,® brand of dipyridamole, 25 mg. t.i.d. or q.i.d.,was administered continuously for 6 months to 50 patients with well authenticated ischemic heart disease with angina pectoris and ECG abnormalities. Results were evaluated on a monthly basis; final evaluation after 6 months showed that 56% of patients were completely free of, or had markedly fewer, anginal attacks, with normal or improved ECG findings; an additional 24% experienced fewer, milder attacks and improved work capacity.

Persantin®
brand of dipyridamole

"...long-term oral therapy with dipyridamole was of benefit in 80 per cent of the patients... relief [of angina] came slowly and was usually maximal after three to six months of continuous treatment"

% of patients responding each month to dipyridamole

Steady, month-by-month improvement with Persantin,® brand of dipyridamole, refutes possibility of "placebo response", reflects gradual improvement in underlying pathology.



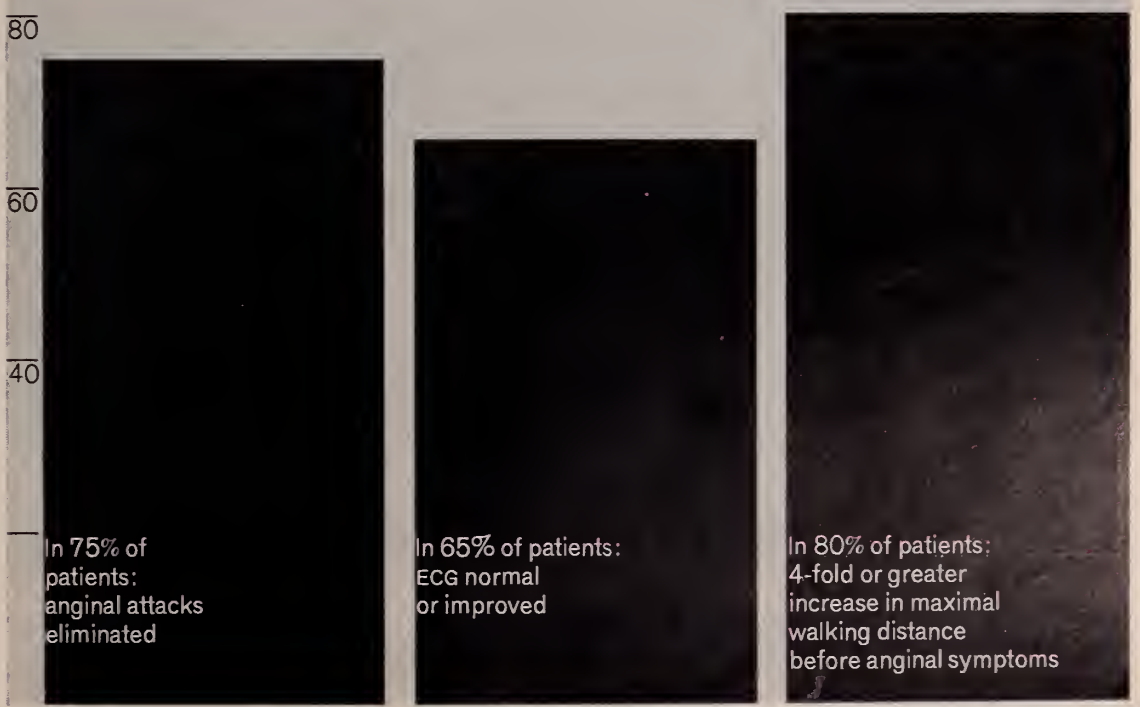
Study 2.
Wirecki,M.: Dipyridamole (Persantin®): Evaluation of Long-Term Therapy in Angina Pectoris. Current Therapeutic Research 5:472, 1963.

In 40 ambulatory patients with myocardial ischemia, angina pectoris, and abnormal ECG findings, Persantin,® brand of dipyridamole, 25 mg. t.i.d., was administered continuously for 3 months.

Results after 3 months of therapy revealed a satisfactory clinical response in 32 patients. The accompanying diagram illustrates the specific criteria of improvement in patients with excellent or good response.

Of 40 patients, 32 showed "...reduction or abolition of acute anginal attacks...complete or almost complete disappearance of ECG abnormalities... marked increase" in walking distance without anginal symptoms

Response after 3 months of continuous therapy with Persantin,® brand of dipyridamole



How Persantin,® brand of dipyridamole, provides long-term clinical benefits reported on previous pages

1. By increasing energy yield
of the hypoxic myocardial cell, by direct action upon the sarcosomes (heart mitochondria).[1-5]

2. By improving collateral coronary circulation.
Prolonged oral administration of dipyridamole to animals with experimentally induced stenosis of a major coronary artery resulted in superior development of collateral coronary anastomoses and longer survival compared with controls.[6-9]

When given for prolonged periods and in adequate dosage, dipyridamole improves the coronary flow deficit of the ischemic myocardium while supporting cardiac metabolism during the period of repair. Clinically, this is manifested as steady improvement – anginal attacks diminish in frequency and intensity, as do other manifestations of insufficiency (dyspnea, fatigue, and, in many instances, abnormal electrocardiographic findings).

Availability:
Tablets of 25 mg., bottles of 100 and 1000.
Under license from Boehringer Ingelheim G.m.b.H.

Prescribing summary: Persantin,® brand of dipyridamole, is indicated in coronary and myocardial insufficiency, in a dosage of 2 to 6 tablets daily in divided doses before meals for several weeks. Side effects (headache, dizziness, nausea, flushing, weakness, syncope, mild gastrointestinal distress) are minimal and transient. The drug is not recommended in the acute phase of myocardial infarction, and should be used cautiously in hypotension.

References: 1.Kunz,W.;Schmid,W.,and Siess,M.: Arzneimittel-Forsch.12:1098,1962. 2.Siess,M.: Arzneimittel-Forsch.12:683,1962. 3.Laudahn,G.: Experientia 17:415,1961. 4.Lamprecht,W.: 27th Congress of the German Society for Circulation Research,Bad Nauheim,1961. 5.Hockerts,T.,and Bögelmann,G.: Arzneimittel-Forsch.9:47,1959. 6.Vineberg,A.M.,et al.: Canad.M.A.J.87:336,1962. 7.Chari,S.R.et al.: Presented at the International Congress of Chest Physicians,New Delhi,1963. 8.Neuhaus,G.,et al.: Presented at the Fourth World Congress of Cardiology,Mexico City,1962. 9.Asada, S.,et al.: Japanese Circ.J.27:849,1962.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York, Distributors

PE-2254



For comprehensive control of the whole pain complex...

Like a triad, the action of Trancogesic is direct and simple as 1,2,3. Its tranquilaxant component – chlormezanone – 1. reduces emotional reaction to pain . . . 2. decreases skeletal muscle spasm . . . and 3. its aspirin component dims the patient's perception of pain. Thus, Trancogesic controls the *whole* pain complex – *with unsurpassed tolerance.*

Each tablet of Trancogesic contains 100 mg. of chlormezanone and 300 mg. (5 grains) of aspirin. The usual adult dosage is 2 tablets of Trancogesic three or four times daily. Reactions to Trancogesic have been minor – gastric distress, and an occasional weakness, sedation or dizziness. Ordinarily, these may be reversed by a reduction in dosage or temporary withdrawal of the drug. Trancogesic is contrainindicated in persons known or suspected to have an idiosyncrasy to aspirin.

WINTHROP LABORATORIES, NEW YORK 18, N. Y.

TRANCOGESIC*
CHLORMEZANONE with ASPIRIN
*TRADEMARK 100 MG. 300 MG.

Winthrop

1777M

CORONARY VASODILATOR

. . . IN TIMED, SUSTAINED RELEASE FORM FOR PROTECTION DURING THE CRITICAL HOURS . . . .

3 COMBINATIONS FOR DESIRED EFFECT!

ANTORA-H

Phenobarbital (Warning: May be habit forming).	3/4 gr.
Hyoscyamine Sulfate	0.3858 mg.
Atropine Sulfate	0.0750 mg.
Hyoscine Hydrobromide	0.0222 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA-B

Secobarbituric Acid (Warning: May be habit forming).	50 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA

Pentaerythritol Tetranitrate	30 mg.

The ANTORA family offers wide latitude in treating the angina patient with or without anxiety syndromes or with spastic and hypertonis symptoms. The versatility of PETN justifies its use in several combinations to benefit cardiovascular patients. No incompatibility with nitroglycerine is evident.

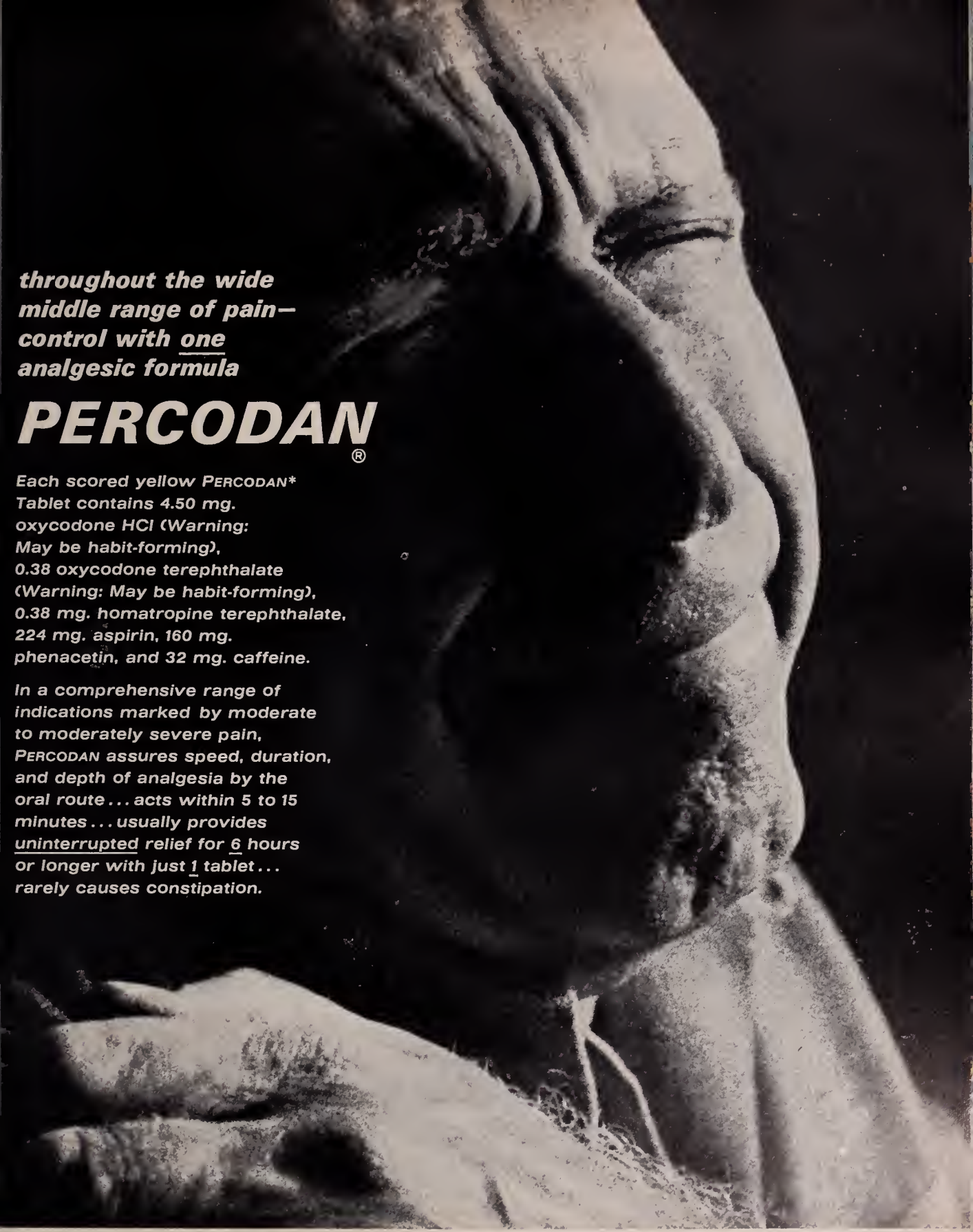
AVAILABLE: Bottles of 60 and 250 capsules.

BRIEF SUMMARY:

Side Effects: Transient headaches and nausea occasionally, not usually severe enough to discontinue medication. In a few sensitive patients, depression, arthralgias, xerostomia and myalgia may be observed. Contraindications: glaucoma, intraocular pressure, barbiturate hypersensitivity.

SAMPLES AND LITERATURE ON REQUEST

Maynard, INC. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA



throughout the wide middle range of pain— control with one analgesic formula

PERCODAN®

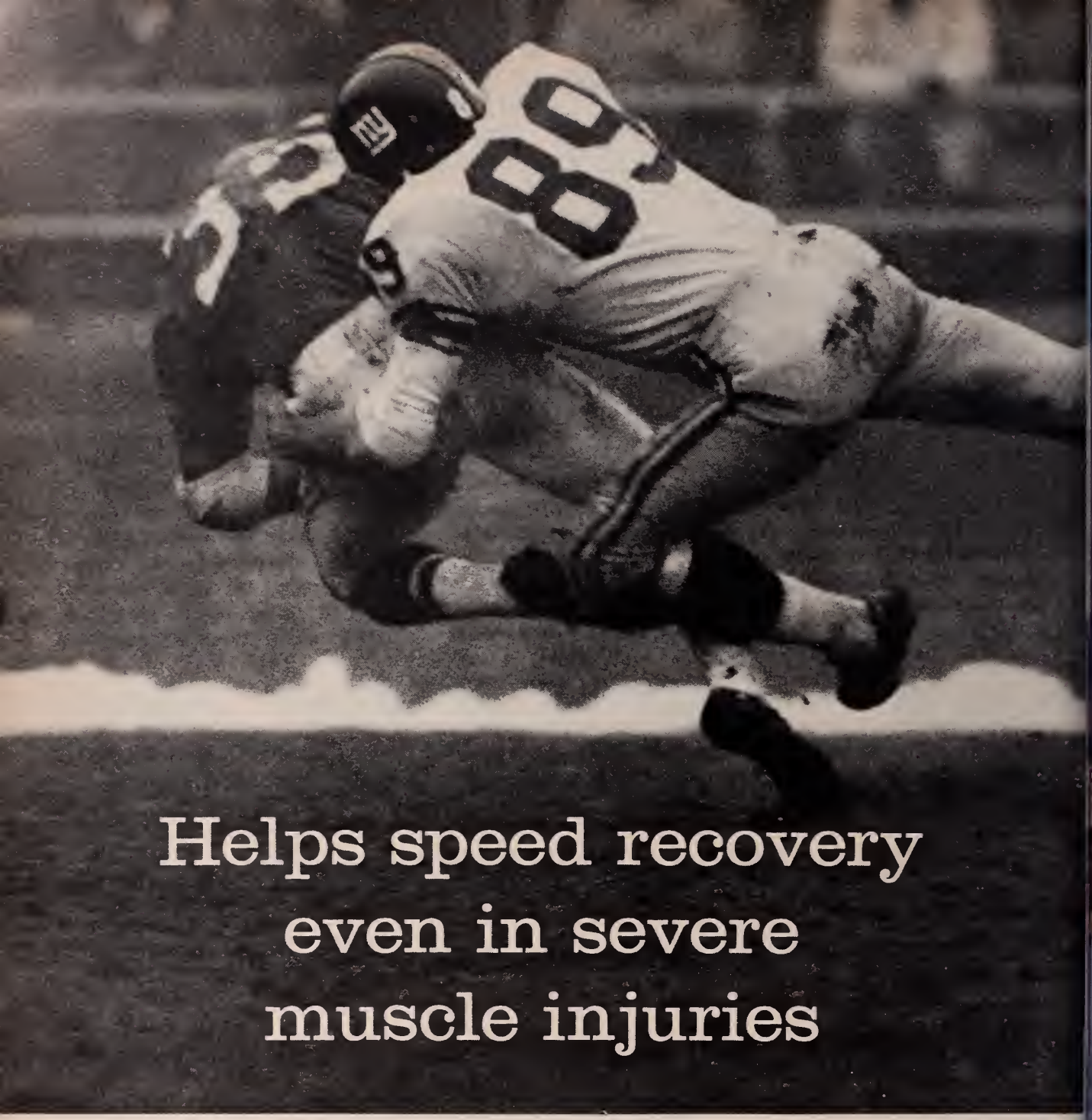
Each scored yellow PERCODAN* *Tablet contains 4.50 mg. oxycodone HCl (Warning: May be habit-forming), 0.38 oxycodone terephthalate (Warning: May be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. aspirin, 160 mg. phenacetin, and 32 mg. caffeine.*

In a comprehensive range of indications marked by moderate to moderately severe pain, PERCODAN *assures speed, duration, and depth of analgesia by the oral route... acts within 5 to 15 minutes... usually provides uninterrupted relief for 6 hours or longer with just 1 tablet... rarely causes constipation.*

Average Adult Dose—1 tablet every 6 hours. **Precautions, Side Effects and Contraindications**—The habit-forming potentialities of Percodan are somewhat less than those of morphine and somewhat greater than those of codeine. The usual precautions should be observed as with other opiate analgesics. Although generally well tolerated, Percodan may cause nausea, emesis, or constipation in some patients. Percodan should be used with caution in patients with known idiosyncrasies to aspirin or phenacetin, and in those with blood dyscrasias. **Also available:** Percodan®-Demi, containing the complete Percodan formula but with only half the amount of salts of oxycodone and homatropine. Both products are on oral Rx in all states where laws permit. Narcotic order required. **Literature on request.** **ENDO LABORATORIES Richmond Hill 18, New York**

Endo®

*U. S. Pats. 2,628,185 and 2,907,768



Helps speed recovery even in severe muscle injuries

Whether your muscle-injury patient is a professional athlete or just a weekend golfer, you can expect rapid results with 'Soma' (carisoprodol).

This unique drug breaks up both muscle spasm and pain at the same time. Onset of action takes only 30 minutes, and your patient will usually begin to feel better within hours.

As Conant demonstrated in a study of 106 patients with musculoskeletal injuries, 88% of the patients treated with 'Soma' (carisoprodol) achieved good to excellent results. *(Clinical Medicine*, March, 1962.)

Carisoprodol seldom produces side effects. Occasional drowsiness may occur, usually at higher than recommended dosage. Individual reactions may occur rarely. For severe athletic strains or everyday sprains, you can rely on 'Soma' (carisoprodol) to help speed recovery with notable safety.

USUAL DOSAGE: ONE 350 MG. TABLET Q.I.D.

The muscle relaxant with
an independent pain-relieving action

Soma®
carisoprodol

Wallace Laboratories, Cranbury, New Jersey



*This one in the High Sierras, California

...nothing, that is, except the sedative-antispasmodic action of

Donnatal®

In each Tablet, Capsule or 5 cc. Elixir		In each Extentab
0.1037 mg.	hyoscyamine sulfate	0.3111 mg.
0.0194 mg.	atropine sulfate	0.0582 mg.
0.0065 mg.	hyoscine hydrobromide	0.0195 mg.
16.2 mg. (¼ gr.)	phenobarbital (¾ gr.)	48.6 mg.

(Warning: May be habit forming)

No serious toxic reactions are to be anticipated. Dryness of the mouth, blurred vision, difficult urination, and flushing and dryness of the skin may occur with excessive and prolonged dosage, but promptly disappear with reduction in dosage. Contraindicated in acute glaucoma, advanced hepatic or renal disease, or idiosyncrasy to any component. Use with care in incipient glaucoma or urinary bladder neck obstruction.

A. H. ROBINS CO., INC., Richmond 20, Virginia

Prescribed by more physicians than any other antispasmodic—*well* over 5 *billion* doses!

when *'pain & spasm'*



call for analgesic-relaxant action···

Whether spasm is induced by pain, or pain by spasm, satisfactory control usually requires analgesic as well as relaxant action. In such cases, ROBAXISAL combats both pain and spasm. When apprehension is a complicating factor, ROBAXISAL-PH is indicated.

Among the many conditions for which ROBAXISAL and ROBAXISAL-PH have been found effective are: strains and sprains, painful disorders of the back, "whiplash" injury, myositis, pain and spasm associated with arthritis, low back pain, torticollis, and headache associated with muscular tension.

Side effects such as lightheadedness, slight drowsiness, dizziness and nausea may infrequently occur but usually disappear on reduction of dosage. There are no specific contraindications other than hypersensitivity to any one of the components.

*Skeletal muscle spasm is a two-headed dragon of 'PAIN & SPASM'



ROBAXISAL®

Each pink-and-white laminated Tablet contains:

ROBAXIN (methocarbamol, Robins)	400 mg.
U.S. Pat. No. 2770649	
Aspirin (5 gr.)	325 mg.

ROBAXISAL-PH®

Each green-and-white laminated Tablet contains:

ROBAXIN (methocarbamol, Robins)	400 mg.	Hyoscyamine sulfate	0.016 mg.
Phenacetin	97 mg.	Phenobarbital (1/8 gr.)	8.1 mg.
Aspirin	81 mg.	(Warning: May be habit forming)	

Robins

A. H. ROBINS CO., INC., Richmond 20, Virginia



Protects your angina patient better than vasodilators alone

'Miltrate' contains both pentaerythritol tetranitrate, which dilates the patient's coronary arteries, and meprobamate, which relieves his anxiety about his condition. Thus 'Miltrate' protects your angina patient better than vasodilators alone.

Pentaerythritol tetranitrate may infrequently cause nausea and mild headache, usually transient. Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Like all nitrate-containing drugs, 'Miltrate' should be given with caution in glaucoma.

Dosage: 1 or 2 tablets *before meals* and at bedtime. Individualization required.
Supplied: Bottles of 50 tablets.

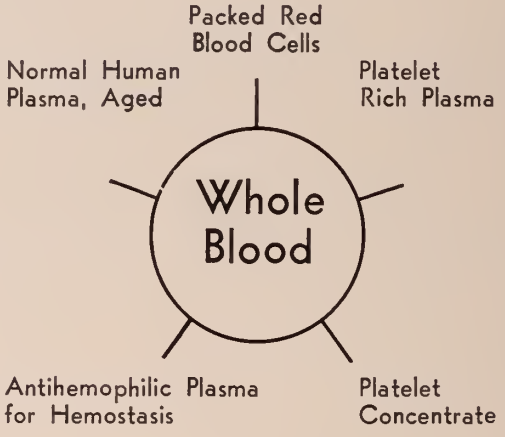
CML-9646

Miltrate®
meprobamate 200 mg.+
pentaerythritol tetranitrate 10 mg.

WALLACE LABORATORIES / *Cranbury, N. J.*

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE

why does 150 mg.



do more than 250 mg.



of other tetracyclines?

Because it has up to 3½ times the *in vitro* antibacterial activity[1]...combined with lower rate of decay in serum, slower renal clearance...a favorable depot effect, resulting from protein binding...all providing rapid, higher and sustained *in vivo* activity with as much as 2 days' extra activity.

DECLOMYCIN

DEMETHYLCHLORTETRACYCLINE HCl

Effective in a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill—when the offending organisms are tetracycline-sensitive. *Side Effects* typical of tetracyclines which may occur: glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis, dermatitis, overgrowth of nonsusceptible organisms. Also: photodynamic reaction (making avoidance of direct sunlight advisable) and, very rarely, anaphylactoid reaction. Reduce dosage in impaired renal function. *Capsules,* 150 mg. and 75 mg. of demethylchlortetracycline HCl. *Average Adult Daily Dosage:* 150 mg. q.i.d. or 300 mg. b.i.d. 1. Sweeney, W. M.; Dornbush, A. C., and Hardy, S. M.: Demethylchlortetracycline and Tetracycline Compared. Relative *in vitro* Activity and Comparative Serum Concentrations During 7 Days of Continuous Therapy. *Amer. J. Med. Sci.* 243:296 (Mar.) 1962.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

7185-3

RECOGNIZE THIS PATIENT?



"I don't sleep well . . . I dream a lot . . . wake up tired and irritable. I don't have any appetite . . . I'll never be cured."

When you recognize signs of depression and anxiety and associate them with an organic condition—add 'Deprol' to your therapy.

Typical conditions in which 'Deprol' should be considered for control of the associated depression and anxiety:

Cancer ■ Cardiovascular disorders ■ Arthritis ■ Menopause ■ Alcoholism ■ Obesity ■ Asthma, hay fever and related allergies ■ Chronic infectious diseases ■ Pregnancy and post partum ■ Dermatoses ■ G.I. disorders, and many other organic disturbances.

When you recognize depression and anxiety traceable to an emotionally charged situation with no somatic disorder—start the patient on 'Deprol'.

Typical situations in which 'Deprol' is indicated:

Fear of cancer or other life-threatening disease ■ Pre- and post-operative fears ■ Marital problems ■ Death of a loved one ■ Loss of work ■ Retirement problems ■ Financial worries, and many other stressful situations.

Deprol®

meprobamate 400 mg. + benactyzine hydrochloride 1 mg.

BRIEF SUMMARY: *Indications:* Depression, especially when accompanied by anxiety, tension, agitation, rumination or insomnia. *Side Effects:* Slight drowsiness and, rarely, allergic reactions, due to meprobamate, and occasional dizziness or feeling of depersonalization in higher dosage, due to benactyzine, may occur. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage. *Complete product information available to physicians on request.*

USUAL ADULT DOSAGE: 1 tablet q.i.d. May be increased gradually, as needed, to 3 tablets q.i.d.; with establishment of relief, may be reduced gradually to maintenance levels.

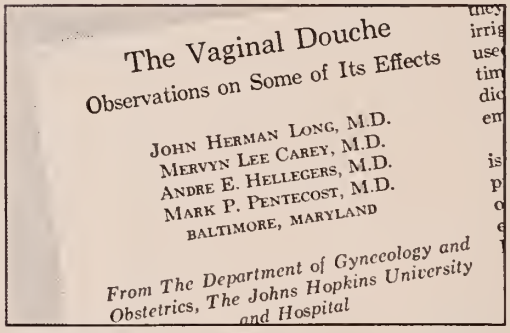
SUPPLIED: Light-pink, scored tablets. Bottles of 50.

WALLACE LABORATORIES / *Cranbury, N.J.*

CD-9689

A Valuable Contribution To Medical Literature

A DEFINITIVE STUDY ON DOUCHING



The Vaginal Douche

Observations on Some of Its Effects

JOHN HERMAN LONG, M.D.
MERVYN LEE CAREY, M.D.
ANDRE E. HELLEGERS, M.D.
MARK P. PENTECOST, M.D.
BALTIMORE, MARYLAND

From The Department of Gynecology and Obstetrics, The Johns Hopkins University and Hospital

A SEARCH OF MEDICAL LITERATURE REVEALS NO COMPARABLE OBJECTIVE EVALUATION OF THE SUBJECT.

The authors state at the outset,

"Each physician has his own idea of the value or harm of the vaginal douche and many have expressed such ideas in writing. Such opinions have been arrived at without any intensive investigation or observation of subjects using douches as compared to those not using them. The purpose of this study is to report our observations on three groups of patients, one taking no douches, a second douching with a medicated solution* and a third douching with plain water."[1]

1. West. J. Surg., Obsts. & Gynec.: *71*:122-127, 1963

*The medicinal powder used in this study was META CINE®, a scientifically formulated preparation containing: papain, lactose, citric acid, methyl salicylate, eucalyptol, menthol and chlorothymol.

OBSERVATIONS BASED ON EXTENSIVE AND THOROUGH EXAMINATION SCHEDULE.

"One hundred patients were selected at random, regardless of their chief complaint, from the general population attending the Out-Patient Gynecology Clinic of The Johns Hopkins Hospital. Those selected were reexamined at 1, 3, 6, 9 and 12 months after the initial visit."

"At intervals patients were switched to the regimen of another group so that comparison of the effect of douching or not douching might be made in the same individual."

Three years were required to complete the study.

An evaluation of the objective findings of the study demonstrates that douching with META CINE® had the following effects on vaginal secretion:

- increased Doderlein organisms,
- proved effective in lowering WBC counts,
- proved effective in increasing glycogen content.

META CINE® was found to be a good antagonist to vaginal discharge and irritation—and also proved effective in reducing cervicitis.

No untoward effects of douching were encountered in the study.

Reprints of the complete study and professional samples of Meta Cine are available on request.

BRAYTEN PHARMACEUTICAL COMPANY • *Chattanooga 9, Tennessee*

Announcing a valuable new aid for all who treat young patients

A New Book! CURRENT PEDIATRIC THERAPY Edited by Gellis and Kagan

This entirely new book, *Current Pediatric Therapy*, will enable you to enjoy the same type of specific *therapeutic* recommendations for your young patients that readers of *Current Therapy* have been receiving for some fifteen years. Dr. Sydney S. Gellis and Dr. Benjamin M. Kagan have edited this new work, with contributions by over 200 leading authorities. Therapeutic details are pinpointed for more than 300 diseases—from *Kwashiorkor* and *Protein Deficiency* to *Infantile Cortical Hyperostosis*, and *Prematurity*. All the diseases and disorders in this book are treated in terms of how they afflict infants and children. Since this book equals Current Therapy in size, you can see how valuable this comprehensive text can be in this area of your practice.

All discussions are approached from the pediatric point of view, with dosages, diets, prescriptions, etc., written for infants and children. This new *Current Pediatric Therapy* concentrates on giving you the best treatments available today as they are currently being used by specialists with wide experience in specific areas. You will not find involved discussions of diagnosis and etiology here—just concise, clearly delineated details on the best treatments for virtually all the diseases and disorders you will be called upon to manage in your child patients.

Whether you need a diet for a phenylketonuric child, help on deciding the proper dosage of antiepileptic medication, or late information on immunization schedules, you'll find it spelled out precisely in *Current Pediatric Therapy*.

By 224 Leading Authorities. Edited by SYDNEY S. GELLIS, M.D., Professor of Pediatrics, Boston University School of Medicine; Director of Pediatrics, Boston City Hospital; and BENJAMIN M. KAGAN, M.D., Director of Pediatrics, Cedars of Lebanon Hospital, Los Angeles. About 864 pages, 7-7/8" x 10-7/16". About $16.00. New—Ready January!

Up-to-date help for your research and for your evaluation of other's work

New (2nd) Edition! Mainland's ELEMENTARY MEDICAL STATISTICS

Here is an enlarged and improved *New (2nd) Edition* of one of the most respected American texts on medical statistics. Dr. Mainland has devoted the first ten chapters to expanded discussions on statistical *thinking*, rather than arithmetic. These beginning chapters are in the form of questions which you can ask yourself regarding your own research, and which you can apply to evaluation of the work of others. Each question is the basis for an explanatory discussion. In this section you'll find vital information on: *the nature of the research; purpose and general method of investigation; the population and sampling; interpretation; sample sizes; collecting and examining data.* Next, specific methods of analysis are presented and discussed. Chief attention is paid to methods a small scale investigator would use. In this latter portion of the book you'll find such topics as: *random processes; standard deviation; frequency distribution of measurements; causes of bell-shaped distribution; estimation of population percentiles; correlation coefficients, etc.*

By DONALD MAINLAND, M.B., Ch.B., D.Sc., Professor and Chairman, Department of Medical Statistics, New York University College of Medicine. 381 pages, 6⅛" x 9¼", illustrated. About $9.00.
New (2nd) Edition—Just Ready!

To Order Mail Coupon Below!

W. B. SAUNDERS COMPANY
West Washington Square, Philadelphia 5, Pa.

Please send when ready and bill me:

☐ *Current Pediatric Therapy*.....About $16.00

☐ Mainland's *Elementary Medical Statistics*.....About $9.00

Name.....

Address.....

SJG 10-63

reduce or obviate the need for transfusions and their attendant dangers

KOAGAMIN is indicated whenever capillary or venous bleeding presents a problem.

KOAGAMIN has an outstanding safety record -- in 25 years of use no report of an untoward reaction has been received; however, it should be used with care on patients with a predisposition to thrombosis.



KOAGAMIN®

parenteral hemostat

Each cc contains: 5 mg. oxalic acid, 2.5 mg. malonic acid, phenal 0.25%; sodium carbonate as buffer.

Complete data with each 10cc vial. Therapy chart on request.

Chatham CHATHAM PHARMACEUTICALS, INC.
Newark 2, New Jersey
Distributed in Canada by Austin Laboratories, Ltd. • Paris, Ontario



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN
Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities

KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.



In Sprains, Strains and Muscle Spasm, 'Soma' Compound

numbs the pain...not the patient

A potent analgesic and a superior muscle relaxant

1. A sprain or fracture is not a big clinical problem—but it does hurt. And if there is housework to do and kids to mind, the patient needs something to numb the pain.

2. A.P.C. compounds have limited usefulness; and the patient can buy them without your prescription. Unfortunately, most of them are too mild to be effective for sprains—and more potent products too often make the patient feel 'dopey'.

3. 'Soma' Compound is ideal in these cases. Since it contains both 'Soma' (carisoprodol) and acetophenetidin it is both a potent analgesic and a superior muscle relaxant; it also contains caffeine to offset any drowsiness *("numbs the pain...not the patient")*.

4. Why not try 'Soma' Compound? Dosage is 1 or 2 tablets q.i.d. For more severe pain, try 'Soma' Compound + Codeine. Dosage: 1 or 2 tablets q.i.d.

5. Hypersensitivity to carisoprodol may occur rarely. Codeine may produce addiction, nausea, vomiting, constipation or miosis.

Soma® Compound

carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg.

Soma® Compound + Codeine

carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg., codeine phosphate 16 mg. (Warning—may be habit forming.)

WALLACE LABORATORIES / *Cranbury, N.J.*

CSO-9193

Pardon Me!



FOR EFFECTIVE CONTROL . . . OF MOST UNNECESSARY COUGHS

A POTENT antitussive and expectorant (without sugar)

TOLU-SED®

(For prompt relief of a wide variety of coughs, including those associated with colds, bronchitis, throat irritations, influenza, asthma, smoking, smog, dust irritation, and excessive use of the voice.)

EACH FLUID OUNCE CONTAINS:	
64.8 mg.	**CODEINE PHOSPHATE***—For its well-known actions in suppressing unnecessary and nonproductive coughs, AND to decrease the viscosity of sputum.
6 mg.	**CHLORPHENIRAMINE MALEATE**—To correct those allergic components which may be due to histamines. (The antihistaminic may contribute the usefulness of this preparation if locally released histamine plays a role in the process which causes the bronchial irritation.)
600 mg.	**GLYCERYL GUAIACOLATE**—To increase the fluidity of respiratory tract secretions. This action decreases the irritating effect of inspissated mucus and facilitates its removal.
2.5 gr.	**TOLU**—Because Tolu has been found useful on an empirical basis for coughs of diverse etiology.
2 min.	**CHLOROFORM**

***Contraindications:**

Codeine phosphate may be habit forming. In very large doses it may depress respiration.

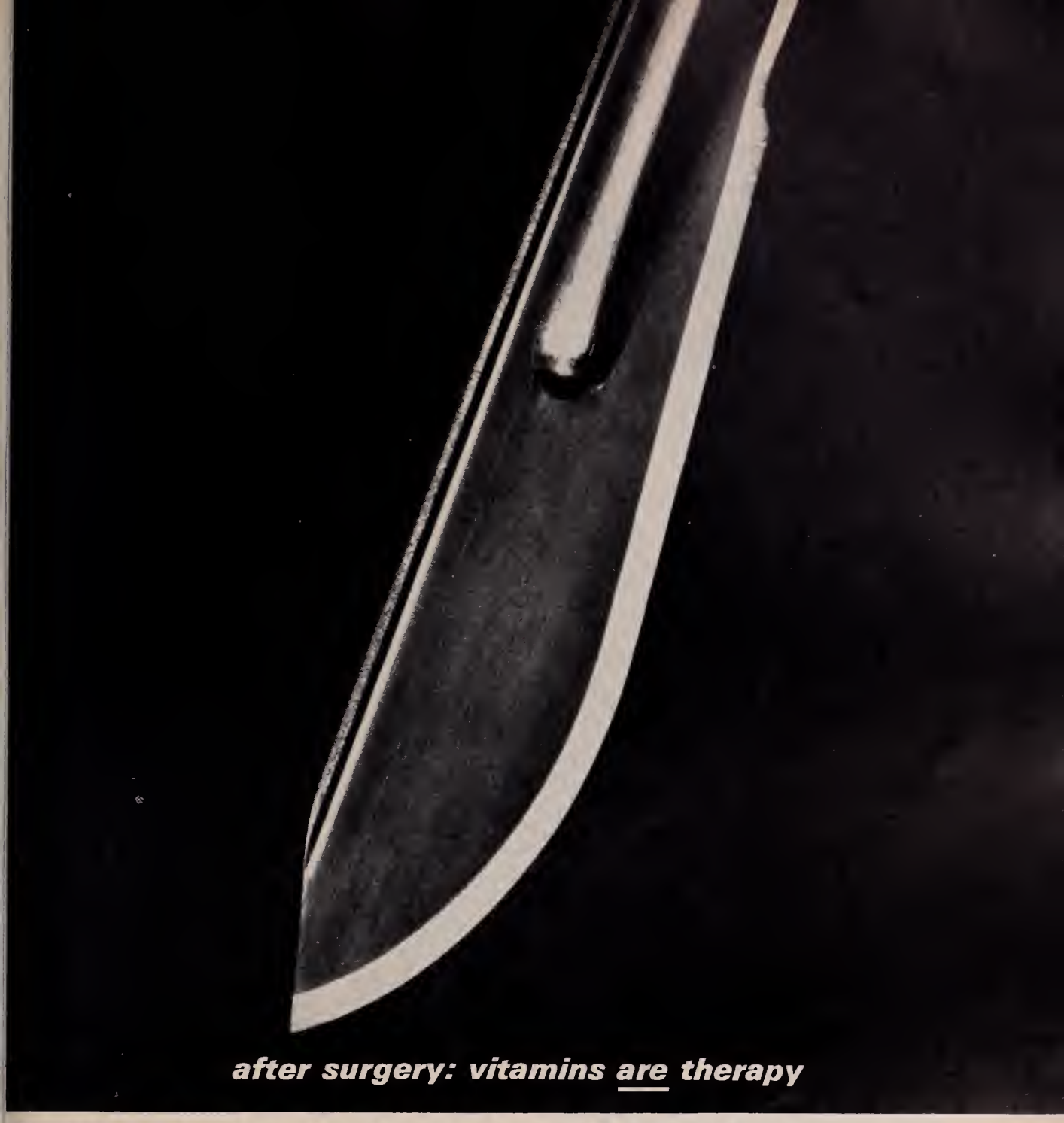
Availability: Pints and Gallons

Administration and Dosage:
For Adults: 1 teaspoonful which may be repeated every 3 or 4 hours.

For Children over 6 years of age: ½ teaspoonful every 4 hours if necessary.

First Texas *Pharmaceuticals, Inc.*

DALLAS • ATLANTA • SINCE 1901



after surgery: vitamins are therapy

Nutritional supplementation is basic to postoperative care. Therapeutic allowances of B and C vitamins help meet increased metabolic requirements and compensate for stress depletion. STRESSCAPS can set the patient on a more favorable course and contribute to full recovery.

FOR PROFESSIONAL

RECOMMENDATION ONLY

Each capsule contains: Vitamin B_1 (Thiamine Mononitrate)...10 mg. / Vitamin B_2 (Riboflavin)...10 mg. / Niacinamide... 100 mg. / Vitamin C (Ascorbic Acid)...300 mg. / Vitamin B_6 (Pyridoxine HCl)...2 mg. / Vitamin B_{12} Crystalline... 4 mcgm. / Calcium Pantothenate...20 mg. Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

6316-3

STRESSCAPS®

Stress Formula Vitamins Lederle





For dramatic restoration

WINSTROL®

brand of STANOZOLOL

Oral anabolic therapy with this new physiotonic helps restore the patient's: positive protein metabolism; confidence, alertness and sense of well-being.

WINSTROL (stanozolol/Winthrop), a heterocyclic steroid, combines highest potency* with outstanding tolerance, stimulates appetite and promotes weight gain... restores a positive metabolic balance. It counteracts the catabolic effects of concomitant corticosteroid or ACTH therapy. WINSTROL (stanozolol/Winthrop) rebuilds body tissue while it builds strength, confidence and a sense of well-being in conditions associated with excess protein breakdown, insufficient protein intake and inadequate nitrogen and mineral retention.

Side Effects and Precautions: Prolonged administration can produce mild hirsutism, acne or voice change. In an occasional patient, edema has been observed and in young women the menstrual periods have been milder and shorter. These side effects are reversible, and patients receiving prolonged treatment should be examined and questioned periodically so that, should side effects appear, the dosage may be reduced or administration of the drug discontinued for a time.

In patients with impaired cardiac and renal function, there is the possibility of sodium and water retention. Liver function tests may reveal an increase in bromsulphalein retention, particularly in elderly patients. In such cases, therapy should be discontinued. Although it has been used in patients with cancer of the prostate, its mild androgenic activity is considered by some investigators to be a contraindication.

Dosage: Usual adult dose, 1 tablet t.i.d. before or with meals; young women, 1 tablet b.i.d.; children (school age): up to 1 tablet t.i.d.; children (preschool age): ½ tablet b.i.d. Available as scored tablets of 2 mg. in bottles of 100. For best results, administer with a high protein diet.

*ANIMAL DATA

Rx WINSTROL (stanozolol/Winthrop) whenever anabolic therapy is indicated

Winthrop

Winthrop Laboratories, New York 18, New York

"They keep saying I'm sloppy!"



Nicozol® helps you restore your geriatric patients' interest in themselves

NICOZOL therapy can help you brighten the outlook of your aging patients who tend towards (1) untidiness, (2) irritability, (3) incompatibility, (4) lack of interest, and (5) loss of memory or alertness.

The NICOZOL formula helps improve mental acuity, increase the supply and use of oxygen in the brain, improve peripheral circulation—without excitation, depression, or other untoward effects.

NICOZOL can help you keep your aging patients actively alert and at ease with themselves, their families, and others.

Supplied: NICOZOL tablets (and capsules) in bottles of 100 and 1000. NICOZOL elixir in pints and gallons.

Precautions: May produce overstimulation in high doses. Discontinue if muscular twitchings or clonic convulsions occur. The flush produced in sensitive individuals is transient and harmless.

Average Dose: 1 to 2 tablets (or capsules) 3 times a day. 1 teaspoonful elixir 3 times a day.

Formula: Each tablet or capsule contains:
Pentylenetetrazol ..... 100 mg.
Nicotinic Acid ..... 50 mg.
Each teaspoonful (5 cc.) elixir contains:
Pentylenetetrazol ..... 200 mg.
Nicotinic Acid ..... 100 mg.
(as the sodium salt)
Alcohol 5%

HART | Division of A. J. Parker Co. LABORATORIES Bryn Mawr, Pa., Winston-Salem, N.C.

NICOZOL®

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY

Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
50/150	84.67	202.61
100/300	92.29	220.83
200/300	96,32	230.48
300/600	112.80	253.20
500/1 Million	132.83	278.85
1 Million/1 Million	139.55	294.93

X-RAY—RADIUM OR SHOCK THERAPY

5/15	89.60	152.00
50/150	169.34	287.28
100/300	184.58	313.12
200/300	192.64	326.80
300/600	213.60	354.00
500/1 Million	237.66	383.68
1 Million/1 Million	251.10	406.48

1. Partnership liability, increase premium for each partner by 20%
2. Anesthesiologists take Physicians rates.
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Other limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability

*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.

Schering



Your recommendation of **Coricidin** assures responsible treatment of common colds. For added decongestant action, recommend Coricidin "D" Decongestant Tablets.



Each CORICIDIN Tablet contains: CHLOR-TRIMETON® (chlorpheniramine maleate, Schering) 2 mg., aspirin 0.23 Gm., phenacetin 0.16 Gm., caffeine 0.03 Gm.

Each CORICIDIN "D" Tablet contains phenylephrine 10 mg. in addition to the above ingredients.

CORICIDIN Tablets, brand of antihistaminic-antipyretic-analgesic compound

S-161



It is unlawful to duplicate this key

This is the key that opens the box that contains the labels. Only authorized supervisory personnel have the key to transfer labels from the "lockup box" to the labeling machine. ■ These responsible Lilly employees regard labels as serious business. To make certain that the right label appears on each container, all labels are kept under lock and key until needed on the finishing line. Only the quantity needed to finish the lot is dispensed. When transferred to the finishing belt, the appropriate number of labels is placed in the labeling machine. Excess labels are put in the lockup box until needed. At night, the supervisor returns unused labels to the box lest some get lost or misplaced. ■ This is just one more precaution in an endless list of rules that contribute immeasurably to the quality of the finished product.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

300192

Journal of the Tennessee Medical Association
OWNED AND PUBLISHED BY THE ASSOCIATION
Volume 56 OCTOBER, 1963 Number 10

Hypothyroidism and Myxedema*

JOHN W. RUNYAN, M.D.,† Memphis, Tenn.

The author reviews in detail the diagnostic aspects of hypothyroidism—both clinical and by the laboratory.

Hypothyroidism and myxedema are probably much more frequent in occurrence than generally considered. If one waits for the patient to present with the classic symptomatology of fatigue, weakness and drowsiness, he will probably go undetected, for very seldom does the myxedematous patient complain of these without direct questioning. Detection of myxedema usually depends upon the physician's ability to recognize the clinical appearance of the patient, and often some of its unusual features. Previous treatment for hyperthyroidism with radioactive iodine or surgery may also be a clue to the presence of hypothyroidism and myxedema.

The term myxedema usually refers to the skin changes associated with decreased thyroid function. Hypothyroidism refers to thyroid underfunction, but does not necessarily indicate that there are stigmata of myxedema of the skin. For example, in hypothyroidism due to panhypopituitarism the classic changes of myxedema may not be present.

Symptoms and Signs

It is the appearance of the patient or finding of one of its manifestations that usually draws the attention of the physician to the possibility of myxedema, and then with close questioning many of the symptoms of myxedema may be elicited. The patient will then admit to loss of energy and perhaps weakness and cold intolerance. Symptoms relating to the nervous system are among the more common. These range from poor concentration, forgetfulness and drowsiness to even coma. Hearing is often decreased, and paresthesia of the hands particularly are noted. In some patients due to myxedematous changes of the transverse carpal ligament, there is pressure on the median nerve producing the carpal-tunnel syndrome which may result in paraesthesias, weakness, pain and atrophy of the thumb and forefinger. A few patients experience emotional lability which might extend to frank psychosis, the so called "myxedema madness." The skin is the site of many classic changes that are associated with myxedema. The skin may be dry, thickened and scaly with the feeling of sand paper over the exposed surfaces. There may be a striking pallor, but on the other hand some patients have a yellowish tint to their skin due to the retention of carotene. There is a notable lack of sweating. Scalp hair may become coarse, dry and sparse and as the disease advances, axillary and pubic hair may become thin. The eyebrows are decreased on the lateral one-third but this may occur in patients other than those with myxedema. The eyelids may be puffy, and there may be periorbital edema. The patient notes constipation and rarely diarrhea. Anorexia may be noted upon direct questioning. Many have pain which is actually a common presenting complaint of the patient. Headache, muscular and joint type pain and backache are encountered. There may be a loss of libido and potentia, but the patient with myxedema

*Presented at the Annual Meeting of the Tennessee State Medical Association, April 10, 1963, Knoxville, Tenn. Symposium on "Thyroid Dysfunction."

†From the University of Tennessee College of Medicine, Division of Medicine, Memphis, Tenn.

doesn't complain of this, and the information is obtained only on direct questioning. In the female patient alteration of the menses often occurs. During the early stages there may be meno- and metrorrhagia but in the advanced stages scanty menses and amenorrhea may appear. Amenorrhea should bring to mind the possibility of pituitary insufficiency with secondary involvement of the thyroid, however.

Shortness of breath and cardiac failure occur and angina pectoris may precede thyroid replacement. Pitting edema of the lower extremities as well as the nonpitting myxedema occurs in about half the patients. The increase in body weight in myxedema is usually due to the retention of fluids, and occasionally there is actually weight loss because of anorexia. Hypothyroidism occurs in thin patients and in fact very seldom do we see patients weighing over 200 pounds with myxedema.

When the possibility of hypothyroidism and myxedema is brought to mind, careful examination of the patient may be most revealing. The skin and hair changes may be striking and there may be hoarseness due to the myxedematous involvement of the vocal chords. Most of our patients with myxedema do not have goiters or even a palpable thyroid gland but occasionally enlargement is found. If the gland is hard, Hashimoto's struma may be the etiology. Delayed deep tendon reflexes are probably the most useful single physical finding. In about 75% of the patients with myxedema, the delayed return of the deep tendon reflex is found and if present is almost pathognomonic for hypothyroidism. Various instruments are on the market that are designed to measure these reflexes accurately. Cardiac enlargement may be present due to pericardial effusion, hypertrophy or dilitation. Bradycardia is almost invariably present.

The most reliable test in the diagnosis of myxedema and hypothyroidism is the serum protein-bound-iodine (PBI). This test is available to all who practice medicine for there are excellent laboratories to which specimens may be mailed and the result returned promptly. The normal range for the PBI is usually 4 to 8 micrograms and levels below 3.5 are consistent with the diagnosis of myxedema and hypothyroidism. Recent mercurial diuretic injections may give artificially low levels. High values may be due to contamination with inorganic iodine, such as found in cough medicines, vitamin preparations, etc., and organic iodine dyes used in diagnostic procedures such as gall bladder series and intravenous pyelography. In myxedema, since iodine turnover is very slow, elevations of organic iodine may persist for long periods after the dye is administered. Radioactive iodine (RAI) is somewhat less valuable in the diagnosis of hypothyroidism than the PBI. It is not as readily available as the PBI, but is useful in some patients for confirmation. Organic iodines from diagnostic procedures or inorganic iodines lower the RAI due to suppression of iodine uptake by the thyroid gland, and yet the patient not have myxedema. One generally expects uptakes in the range of less than 5 or 6% in hypothyroidism, but occasionally we have had true hypothyroid patients with uptakes as high as 11%. The normal range for RAI is about 15 to 50% depending upon the laboratory. The basal metabolic rate (BMR) characteristically is low (less than minus 20) but because of technical problems accurate determinations are difficult to obtain except in repeated trials. Cholesterol levels are high in hypothyroidism and myxedema, but in the ordinary clinical laboratory the precision of this test leaves

Laboratory Tests

Table I

PRIMARY MYXEDEMA AND HYPOTHYROIDISM
LABORATORY TESTS

	Normal Range	Consistent with Hypothy.	Comment
PBI[1]	4-8 microg.	Under 3.5 microg.	Most reliable test-available to every physician via mail
RAI[2]	15-20%	Under 6%	Confirmatory test if available
BMR	—15 to +15	Under —20	Limited usefulness
Cholesterol	175-300 mg.%	Elevated	Confirmatory value only.
T_3RBC[3]	F. 11-17% M. 11-19.5%	Useful in the patient that has received organic iodine dyes	

[1]Serum protein bound iodine; [2]Radioactive iodine uptake; [3]Erythrocyte binding of triiodothyronine

much to be desired. The electrocardiogram shows bradycardia, low voltage and often T-wave and ST changes.

Secondary Hypothyroidism

Before thyroid replacement is undertaken one must consider the possibility of hypothyroidism being secondary to pituitary insufficiency with a loss of thyroid stimulating hormone (TSH). Causes of possible pituitary insufficiency should be sought by history and physical examination and in selected cases laboratory procedures. A low blood pressure and small heart may make one suspicious of a pituitary origin of the myxedema. Amenorrhea following blood loss and shock at time of delivery may suggest pituitary necrosis or Sheehan's syndrome. In some patients skull x-ray films for possible pituitary tumor may be indicated. Pituitary involvement with sarcoid or granulomatous infection should be considered as well. Since adrenal function is unduly low in hypothyroidism and myxedema, the finding of low 17-ketosteroids and 17-hydroxycorticoids is not useful in differentiating primary and secondary myxedema. Stimulation with thyroid stimulating hormone (TSH) for 1 to 3 days will usually result in an increase in the PBI and RAI in the patient with hypothyroidism of pituitary origin, but in the patient with primary hypothyroidism and myxedema there will be no increase. Metopirone (SU-4885) has rather limited usefulness in distinguishing primary and secondary hypothyroidism, for in both primary and secondary types there may be inadequate responses in the 17-hydroxycorticoids to its administration. The purpose in properly differentiating primary from secondary hypothyroidism lies in the fact that adrenal crisis can be produced in the patient with secondary hypothyroidism with thyroid replacement therapy which of course endangers the patient's life or his symptoms worsened.

Treatment of primary myxedema and hypothyroidism is thyroid replacement therapy. Thyroid U.S.P. remains a satisfactory replacement therapy and low doses of ¼ to ½ of a grain are given initially, and increased at 2 to 4 weeks up to 2 to 2½ grains. Rarely is more than 3 grains needed. In fact if the patient is able to tolerate a large

Treatment

Table 2

PRIMARY MYXEDEMA AND HYPOTHYROIDISM TREATMENT

	Initial Dosage	Maintenance Dosage	Comment
Thyroid U.S.P.	16 mg. (¼ gr.)	90-180 mg. (1½-3 gr.)	gradual increase over 6-12 wks. to avoid angina and M.I.
Thyroxin (1)	0.025-0.05 mg.	0.15-0.3 mg.	good absorption gradual increase as with thyroid
T^3 (2)	Because of potency has no place in maintenance useful in myxedema coma program		

(1) Synthetic thyroxin (Synthroid ®)
(2) Triiodothyronine (Cytomel ®)

dose of thyroid one should reconsider the diagnosis. Synthetic thyroxin is now available and has been found to be a uniform potent preparation. We have treated a number of patients with this preparation and have found it to be very satisfactory. We begin with a small dose of 0.025 to 0.05 mg. and gradually work up over a period of several months to 0.2 to 0.3 mg. None of our patients have needed more than this dose for proper maintenance therapy. The reason for the initial low doses and the slow increase in dosage stems from the fear that angina pectoris and even myocardial infarction and heart failure may be precipitated. In patients with angina pectoris we often elect to maintain them on less than a full replacement dose in order to minimize angina attacks. Due to its potency and short duration of action triiodothyronine (Cytomel) has little place in maintenance therapy in hypothyroidism and myxedema. In determining proper replacement therapy, we rely primarily upon clinical grounds. We look for an initial reduction in weight due to water diuresis, an increase in pulse, change in the appearance of the patient and an increase in the sense of well being. The PBI is not of great value in following patients but we do occasionally check it when in doubt to see if the medication is being taken. The PBI will be higher than normal on full replacement doses with thyroid U.S.P. because there are nonactive iodine containing substances in thyroid which increase the PBI. On proper replacement

doses of synthetic thyroxin, the PBI levels usually do not exceed 8 micrograms. With triiodothyronine because of its potency the PBI level may be even lower than it was originally, yet the patient may be receiving excessive amounts.

Summary

Recognition and proper treatment of hypothyroidism and myxedema can produce a most satisfactory therapeutic response and return the patient to a full and useful life.

EDUCATIONAL PROGRAMS IN NURSING AND RELATED CAREER OPPORTUNITIES

The members of the AMA Committee on Nursing believe it is fundamental to an understanding of nursing and its problems that physicians have some knowledge of the differences among educational programs in nursing and related career opportunities. Further, the members believe that such an understanding is a vital link in strengthening the relationships between the medical and nursing professions. Therefore the following report has been prepared to provide an overview of the diversification in nursing education.

There are presently wide varieties of educational programs in nursing from which a high school student can choose if she desires to become a nurse. There is also more than one avenue to follow if the professional student wishes to obtain a baccalaureate degree. The educational programs in higher education also vary, dependent on the objectives and the philosophy of the faculty and the university of which the nursing school is an integral part.

The table represents the types of programs available to potential or graduate nurses, or both, the educational facility in which the particular program is offered, and the related fees as well as the locus of responsibility for the fee. . . .

Enlightened nurses, educators, and others recognize that the diversity and heterogeneity of nursing programs lead to misconceptions and misunderstanding on the part of patients, physicians, and potential nursing students and their parents. They realize that nursing education is presently in the process of maturation. As yet no one has come forward with a plan acceptable to all interested groups and one which will lead the way out of confusion. The American philosophy of education has always been that of diversity—not homogeneity. In keeping with this philosophy, the concern about the varieties of programs may not be germane. The challenge for nurses and others, including physicians, is to define the role of the professional nurse and the practical nurse, and to examine these roles and responsibilities in relation to the changing role of the physician in a modern scientific world. What kind of care do patients need and who can most effectively provide that care? When the answer to this question has been made explicit and has been agreed upon, it might be less difficult to predict the type of educational program in nursing essential to meet the needs of the sick of the nation, to teach preventive measures for maximum health and the like.

The AMA Committee on Nursing respectfully suggests that each physician keep informed on trends in nursing in order that he can contribute wherever possible to the improvement of nursing education programs and to the clarification of the role of the nurse.

In conclusion, the Committee suggests that the Committee on Careers, National League for Nursing, 10 Columbus Circle, New York, be contacted for information on accreditation of professional schools of nursing and for careers material in general. (Reprinted from J.A.M.A. 185:144, 1963.)

(Continued on page 397)

The author warns of the side effects, which may be serious, of the sclerosing agents used in the treatment of varicose veins.

A Timely Reminder: Anaphylaxis Associated With Use of Sclerosing Agents*

BERNARD M. WEINSTEIN, M.D., Nashville, Tenn.

A paucity of reports in the recent literature plus three striking experiences with sensitivity reactions are responsible for a review of the literature on the use of sclerosing agents, especially sodium psylliate.**

Biegeleisen,[1] who reported on the use of fatty acids after having done some of the original testing in 1935, stated that Sylnasol was the safest of the newer fatty acid preparations and best filled the need for a mild irritant in the treatment of phlebitis. He called attention to a renal colic type of pain which appeared more often on the left side than on the right and disappeared completely in fifteen minutes.

Cooper[2] pointed out that, unlike sodium morrhuate which is relatively toxic in large quantities, sodium psylliate may be used in amounts ranging from 5 to 10 cubic centimeters at one sitting. In approximately 25,000 injections in 2,000 patients not a single instance of ulcer or sloughing occurred at the site of injection, nor did a single serious infection or thrombophlebitis occur in the treatment of varicose veins. An allergic reaction was noted in only 5 cases, and 4 of these reactions occurred in patients who had been treated with sodium psylliate previously but who had no injections for at least one month prior to the occurrence of this complication. Only one patient suffered a severe anaphylactic reaction

Berkowitz[3] recorded an anaphylactic reaction to the eighth injection of Sylnasol in the course of treating internal hemorrhoids. Shock was so severe and prolonged that the patient died forty-two hours later despite all available therapy. Anuria with associated uremia was deemed the final cause of death. This patient had noted some itching and cramping following his seventh treatment one month before.

A number of reports of deaths due to reactions to sodium morrhuate are found in the European literature. Alexander[4] recommended use of a foam produced by shaking a few drops of sodium psylliate with air stating that allergic reactions depend partly upon the amount of allergen injected and that sloughs were less likely even if some leakage occurred; a smaller needle can be used and less pigmentation occurs. He preferred to inject the material into the emptied vein and never used more than 10 cubic centimeters at one sitting, this being in divided doses waiting several minutes between injections for the possible appearance of a reaction. He stated that 5% of patients will be or will become allergic to sodium psylliate. Urticaria, visual disturbances, vomiting, and even anaphylactic shock can develop very rapidly. He suggested the use of Varisol, a mixture of salt and sugar, where allergic phenomena have been demonstrated to Sylnasol. An antihistaminic may be used prior to injection of very small veins where sensitivity is suspected. It does no good to switch from one soapy solution hoping to avoid allergic symptoms. He further stated that sodium morrhuate, sodium tetradecyl sulfate (Sotradecol) and others will give like reactions. He warned against injection of veins in the lower calf, ankle, and foot in the presence of arterial deficiency as the toe region will suffer from diverted and changed circulation. The disastrous results of accidental intra-arterial injection of sclerosing solutions is general knowledge.

Case Reports

Case 1 (B.L.K.). This white man, age 44, was seen on July 17, 1958, with extending thrombophlebitis in a superficial varix of the left shin

*From the Department of Surgery, Vanderbilt University Medical Center, Nashville, Tenn.

**Sylnasol (Searle)

following an injury. There was no previous history of treatment of varices or the use of sclerosing agents.

One cubic centimeter of sodium psylliate was slowly injected into the involved varix while the patient was in a sitting position. Within 2 minutes the patient noted weakness, began to sweat, became pale, complained of shortness of breath and tightness in the chest. The pulse was 100 and regular, though not full, and B.P. fell to 90/60. After a half hour's rest and observation improvement became apparent. Examination within one hour by his internist failed to show evidence of cardiac changes diagnostic of coronary occlusion. No urticaria, pruritus, asthma or swelling of joints occurred. The patient felt "under par" for 48 hours. He has since manifested no allergic symptoms or heart disease and is an active tennis enthusiast.

Case 2 (M.B.). This patient was a white woman, age 49, in apparently excellent health except for hemorrhoids and varicose veins of the lower extremities. There was no history of allergy or heart disease. Surgical treatment of the varicose veins was rejected.

On July 11, 1958, she was given 2 injections of 1 cc. of sodium psylliate in the right calf region. On July 21, 3 cc. were injected into a large varix in the left thigh. On Oct. 3, 1960, 4 cc. of the same material were injected into a large varix in the right calf region. On no occasion was there any complaint other than the appearance of a soreness localized in the region of the treated varix. The patient stated that she was greatly improved by these treatments. On June 27, 1961, the patient entered the office complaining of discomfort in the right popliteal region associated with a large recurrent varix. She had taken a tranquilizer before being seen as she had been quite nervous because of unhappiness in the family.

While in a standing position, 3 cc. of sodium psylliate were slowly injected into a varix in the right popliteal region through a #25 needle. A pressure dressing was immediately applied. Within 3 minutes after injection she complained that she felt quite ill and rapidly became dyspneic. Her tight clothing was loosened and she was placed in a reclining position. A state of shock developed rapidly. Dyspnea increased. The B.P. could not be recorded and the pulse was rapid and barely perceptible. The heart sounds were regular, 140 per minute, and distant. She became cold and sweaty.

Epinephrine was given subcutaneously. Firemen, from across the street, administered oxygen and 10 cc. of aminophylline were given intravenously. Great improvement was apparent but the blood pressure was still undiscernible. Two cubic centimeters of dexamethasone (Decadron) were given intramuscularly and the patient was taken to the hospital where her internist assumed further care. Electrocardiograms as well as other laboratory examinations were within normal limits. Despite intensive therapy, an extensive urticaria, pruritus, and arthropathy occurred, associated with a febrile reaction and anorexia. A full week of hospitalization was required before the patient could be discharged to her home. She has been in excellent health since.

Case 3 (M.R.). This white woman, age 74, in excellent general health, was first seen in 1946 because of bilateral varicose veins of the saphenous systems. She was offered, but refused, operative help. Nine injections of sodium psylliate, varying from 1 to 4 cc., were given between August and October of 1946. There was no untoward reaction and the results were satisfying. Three more small injections were administered between September and December of 1951 again without ill effects. On Sept. 19, 1962, 3 cc. of the same sclerosing solution were given in the left leg.

On July 3, 1962, 2 cc. of sodium psylliate were injected into a large varix on the anterior aspect of the right leg. About 3 minutes thereafter the patient became nauseated, weak and sweaty. This was progressive. B.P. which had been about 176 mm. systolic, rapidly dropped to 120/60, 100/60, then 90/54. The pulse was easily perceptible, regular, and 120 per minute. A complaint of fullness in the base of the neck was followed by pressure in the substernal region radiating to the mid-back. Dyspnea and pallor never became prominent symptoms. Three-tenths of one cubic centimeter of 1:1000 epinephrine were given intramuscularly and 8 mg. of dexamethasone were given intravenously. Fifty milligrams of meperidine Hcl. were given intramuscularly. A generalized urticaria quickly developed. The patient rapidly improved and regained her composure within twenty-five minutes at which time she was transported to the hospital for further care and observation. Little further therapy was needed. Electrocardiograms were normal. She was discharged from the hospital two days later apparently suffering no further disability from the ordeal.

Conclusions

1. Three adults treated with sodium psylliate, one for the first time, responded with sensitivity reactions from mild to severe.

2. There is a place for the use of fatty acid sclerosing solutions in the treatment of selected cases of varicose veins.

3. The therapist should be well aware of the possible reactions due to the use of fatty acid sclerosing solutions with special consideration to possible previous sensitizations or allergies. Other inorganic solutions may be substituted.

4. The smallest effective amounts of sclerosing solutions should be used and this with care.

5. An emergency supply of oxygen, epine-

phrine, steroids, and sedatives should be on hand in case allergic reactions do occur. The prophylactic use of an antihistaminic drug might forestall or decrease the severity of a serious allergic reaction.

References

1. Biegeleisen, Hyman I.: Fatty Acid Solutions for the Injection Treatment of Varicose Veins, Ann. Surg. 105:610, 1937.

2. Cooper, William M.: Modern Treatment of Varicose Veins, New York J. Med. 44:2483, 1944.

3. Berkowitz, J.: Anaphylaxis in Proctology, Dis. Colon & Rectum 1:182, 1958.

4. Alexander, H. A.: Injection Therapy of Varicose Veins Using Sylnasol Foam, Minnesota Med. 36:249, 1953.

(Continued from page 394)

Data on Programs in Nursing Education

Type of Program	Length of Program	Minimal Educational Requirements	Educational Setting	Administrative Control of School	Range or Average Tuition	Financial Responsibility	Certificate or Degree Conferred	Position for Which Eligible
Practical nurse	Approx. 1 calendar yr.	2 or more yr. of high school, dependent on school requirements	Vocational high school, hospital, or junior college	Local school board or board of trustees of hospital	Free; up to $800	Usually school subsidized; student purchases uniforms, books, etc.	Diploma or certificate—eligible to take examination for licensure as LPN	Bedside nursing under supervision of physician or professional nurse
Diploma (hospital)	27-36 mo.	High school diploma	Hospital	Board of trustees of hospital, or independently incorporated yet associated with a particular hospital	$106 to $2,207 for 3 yr. (median school $826)	Student tuition, hospital and private funds	Diploma—eligible to take examination for licensure as RN	Bedside nursing
Associate degree	2 academic to 2 calendar yr.	High School diploma	Community, or junior college	Local school board, or board of trustees of college	Minimal in state or community jr. col. up to $2,000 per yr. in private colleges	Student tuition, state or community sponsorship, and private funds	*Associate degree—eligible to take examination for licensure as RN	Bedside nursing
Basic or generic baccalaureate	4 academic or 4 calendar yr. A few schools offer 5-yr. courses	High school diploma	College or university	College or university	Varies in state university; up to $2,000 or more per yr. in private universities	Student tuition and college or university funds	Baccalaureate degree—eligible to take examination for licensure as RN	Bedside nursing, public health nursing (candidate for head nursing)
Baccalaureate for RN	2½-3 academic yr. or more	High school diploma	College or university	College or university	Varies in state university; up to $2,000 or more per yr. in private universities	Student tuition and college or university funds	Baccalaureate degree (BS, BN, etc.)	Bedside nursing, public health nursing (candidate for head nursing)
Master's	1-2 yr.	Baccalaureate degree	College or university	College or university	From $2,200 to $3,500 per yr.	Student tuition(traineeships avail. to students from USPHS and others)	Master's degree (MS, MA, MEd, MPH)	Administrator, educator, clinical specialist
Doctoral	Varies with choice of major area; approx. 3 yr. or more	Baccalaureate and master's degrees	College or university	College or university	From $2,200 to $3,500 per yr.	Student tuition (research fellowships avail. to students from USPHS and others)	Doctoral degree in nursing or related field	Administrator, educator, investigator, and others

*Some states do not permit graduates of these schools to qualify for RN licensure and practice.

The authors direct attention to the reportedly rare instances of this disease appearing as a familial tendency.

Multiple Myeloma in Brothers*

LAURENCE A. GROSSMAN, FRED D. OWNBY, MILTON GROSSMAN, HERMAN J. KAPLAN, and LAWRENCE K. WOLFE, M.D., Nashville, Tenn.

Familial cases of multiple myeloma are quite unusual. Often no mention is made of an hereditary aspect of this disease. Geschickter and Copeland[1] cite Dornvick as stating that he had observed a patient with myeloma whose brother had been reported elsewhere as suffering from the same disease. Nadeau, Magalini, and Stefanini,[2] in 1956, reported two siblings with multiple myeloma. In reviewing the family history they suspected that the father had also died of myeloma. Herrell, Ruff, and Bayrd[3] also observed multiple myeloma in two siblings. Although the literature repeatedly stresses the association of myeloma with a high incidence of other forms of malignant disease, these are the only recorded examples of multiple myeloma in members of the same family.

We followed the course of two patients, brothers, both of whom had multiple myeloma and died of the disease.

Case Reports

Case 1. A 71 year old white man entered Vanderbilt University Hospital on Sept. 29, 1954. For 2 weeks he had complained of severe pain in the lower part of the back, radiating to the left hip, which was aggravated by movement, coughing, and sneezing. Two weeks before admission he developed an erythematous, pruritic, scaly rash over the left ankle with some swelling of both ankle joints. There were no urinary symptoms.

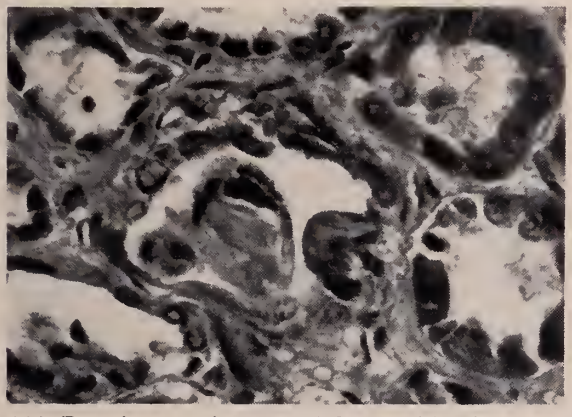
The general examination revealed him to be obese. There was evident pain and muscle spasm upon movement of the lumbar spine. Erythematous, weeping, fissured, scaly areas were present on the extensor surfaces of the elbows and over the dorsum of the left foot and ankle. The left foot and ankle were swollen. The remaining examination was negative except for limitation of movement of the lumbar spine and muscle spasm in this area. Straight leg movement elicited lumbar pain. His B.P. was 140/85 mm. of Hg.

The urinalysis revealed a grade i albuminuria. There were occasional WBC. and a few granular and hyaline casts in the urinary sediment. No Bence-Jones proteinuria was demonstrable. The Hgb. was 12.0 Gm., the packed cell volume 35%, the corrected sedimentation rate 60 mm. per hour. The WBC. count was 5,600 per cu. mm., of which 4% were juvenile forms, 42% P.M.N., 1% P.M.E., 42% lymphocytes, 3% monocytes, and 5% plasma cells. The total serum protein was 9.5 GM., with an albumin of 3.0 Gm., and a globulin of 6.5 Gm. per 100 ml. The blood N.P.N. was 49 mg per 100 ml. No L.E. cells were demonstrable. Examination of the sternal marrow revealed 45% plasma cells and was considered diagnostic of myeloma. Roentgenographic examination of the chest was negative. X-ray study of the dorsal and lumbar spine revealed a compression fracture of the 12th thoracic vertebra. Films of the skull did not show any areas of rarefaction.

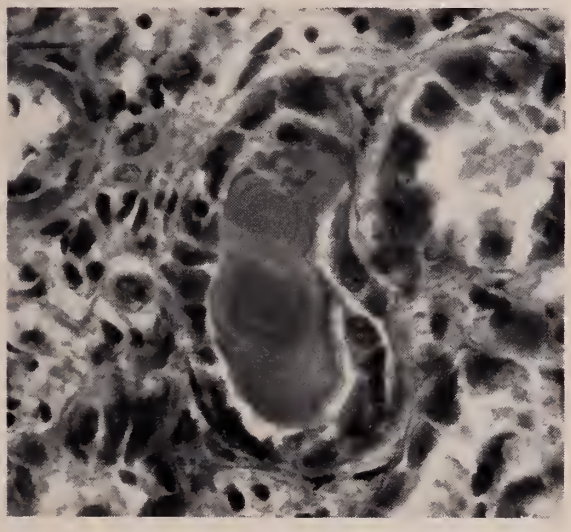
Course. Shortly after admission he developed an acute eczematoid reaction with erythema of the entire body. He became febrile. Multiple petechiae were noted in the soft palate. Deep x-ray therapy over the 12th dorsal vertebra was begun. He received a total of 6,400 roentgen units over this area. Urethane in total dosage of 5 Gm. was administered over a 3 day period. The drug was discontinued because of nausea. On the 15th hospital day his urine became bloody and melena was observed. The platelet count at this time was 94,000 per cu. mm., the bleeding time 15 minutes and the clotting time 14 minutes. The Hgb. fell precipitously to 6.0 Gm. with the packed cell volume being 17%. He was given several transfusions. Within a 5 day period his N.P.N. rose to 240 mg. He rapidly lost ground, developed respiratory difficulty, tachycardia, and expired on the 20th hospital day.

At *autopsy* small petechial lesions and small ulcerative areas were noted throughout the gastric mucosa. The liver weighed 2100 Gm., being approximately twice normal in size. There was periportal scarring with fibrosis tending to accentuate lobular patterns. A heavy infiltration of lymphocytes was present in the periportal areas. These findings were thought to be partially due to chronic cholangitis with scarring. Both kidneys were slightly enlarged. There was a large amount of submucosal hemorrhage in both renal pelves. The collecting tubules contained a large amount of pink staining material and the tubules were considerably dilated. Degenerative changes were present in the tubules, the cytoplasm being severely fragmented and the architecture distorted. The glomeruli were quite large.

The basement membranes of the capillaries making up the tufts of the parietal and visceral layers of the glomeruli were thickened (Fig. 1). The bone marrow was packed with cells, a large percent of which were plasma cells. The blood culture disclosed a heavy growth of hemolytic staphylococcus aureus, coagulase positive. The severe renal impairment and terminal septicemia were thought to have resulted in death. The possibility of toxicity to urethane was considered, but was thought unlikely in view of the extensive renal disease present and the small amount of the drug administered.



(A) Protein cast in renal tubule with giant cell foreign body reaction at the periphery.



(B) Laminated casts of Bence-Jones protein in the tubule.

FIG. 1. *(Case 1.)* Renal lesion of myeloma.

Case 2. A 63 year old carpenter was admitted to Vanderbilt University Hospital on Aug. 7, 1960, with a 4 month history of pain in his hands, mostly nocturnal and increasing in severity. The pain was burning and aching in character, and it had been difficult for him to rest or to obtain any relief at night. Numbness had increased to the point where he had sustained cigarette burns of his right hand on several occasions because of lack of protective sensation.

On examination he did not appear ill. His B.P. was 140/80 mm. of Hg. Positive findings were confined to the extremities and to the neurologic examination. There was bilateral thenar atrophy. Evidence of multiple burns in the right hand were noted. Neurologic examination disclosed an essentially complete paralysis of the median nerve at the level of the wrist. The palmar branch of the median nerve arising just proximal to the carpal tunnel was intact. There was limited excursion of the digits of the hands. Intrinsic musculature supplied by the ulnar nerve was intact. There was marked thickening of both wrists, associated with similar changes in the peritendinous structures just proximal to the volar carpal retinaculum.

There was a 2+ proteinuria, and the urine contained occasional granular casts per high powered field. Bence-Jones protein was demonstrable on repeated examinations. The packed cell volume was 32% with a corresponding reduction in the Hgb. level to 9.4 Gm. The serum uric acid level was 7.1 mg. per 100 ml. Examinations of the bone marrow revealed a high percentage of plasma cells indicative of myeloma. An x-ray film survey of the skull and spine did not show any bony lesions. An x-ray film of the upper gastrointestinal tract revealed a deformity of the duodenal bulb consistent with that of a duodenal ulcer.

A bilateral decompression of the median nerve was performed. There was extensive peritendinous swelling and widespread deposition of amyloid tissue within the carpal tunnel. This was excised and a biopsy obtained. Prompt and immediate relief of all pain in both hands was obtained. Microscopic study of the tissue revealed proliferation into central luminal spaces of a rather accellular amorphous eosinophilic material in the form of strands and whorls (Fig. 2). There

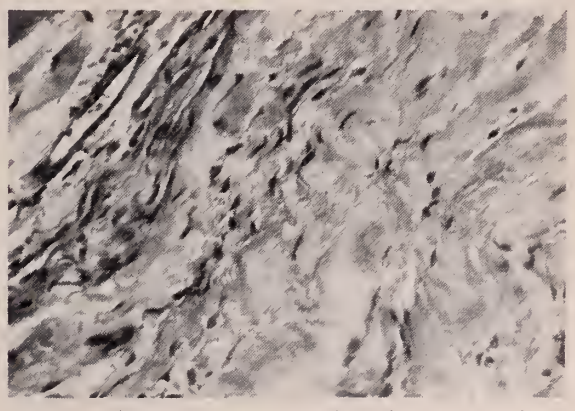


FIG. 2. *(Case 2.)* Amyloid deposits in synovium.

was no evidence of inflammatory cell infiltration. A crystalline violet stain showed large collections of amorphous material taking the pink stain characteristic of amyloid deposits.

Following the operation he was free of pain for 6 months. He then had some pain in the low back and knee joints. Moderate relief was obtained with the use of dexamethasone.

One year after his hospital admission he developed classical angina pectoris. The anginal episodes were, at times, associated with arrhythmias, either paroxysmal auricular tachycardia or paroxysmal auricular fibrillation. With digitalization the arrhythmias were controlled. However, increasing weakness became evident. In January, 1962, 18 months after his initial hospital admission he was readmitted to Vanderbilt University Hospital with diffuse bronchopneumonia. There was an anemia with a Hgb. of 8.2 Gm. and a packed cell volume of 29%. Moderate azotemia was also present, the blood urea nitrogen being 52 mg. per ml. He was treated with tetracycline and given two 500 ml. whole blood transfusions. After discharge he remained at home but complained of weakness and increasing pain in the lumbar spine area. On March 14, 1962, after complaining of severe chest pain, he suddenly expired at home. An autopsy was not obtained.

Comment

The occurrence of multiple myeloma in families is probably more frequent than documented in the literature. The varied clinical manifestations of this disorder often make it difficult to detect myeloma, particularly early in the course of the disease. We were initially suspicious of this disease in the second patient because his older brother had expired of multiple myeloma. Certainly, the presence of anemia in an individual sixty-three years of age with a family history of multiple myeloma should stimulate an intensive search for this disease.

The variation in laboratory findings in the two brothers is also intriguing. The first patient had hyperglobulinemia and a compression fracture as the result of bone destruction. The extensive renal involvement was probably on the basis of abnormal protein deposition. In the second patient amyloid deposition in the carpal tunnel was demonstrated. No abnormality of the serum globulin was detectable. Skeletal survey failed to disclose any evidence of multiple myeloma. The cardiac arrhythmias, the coronary disease, the congestive heart failure all suggest the possibility of amyloid involvement of the heart. However, in the absence of autopsy study, absolute evidence is not available to support such a hypothesis.

Summary

Multiple myeloma occurred in two siblings. Both brothers expired of the disease. Clinical manifestations and many laboratory findings differed in each case.

References

1. Geschickter, C. F. and Copeland, M. M.: Multiple Myeloma, Arch. Surg. 16:807, 1928.

2. Nadeaw, L. A., Magalini, S. I. and Stefanini, M.: Familial Multiple Myeloma, A.M.A. Arch. Path. 61:101, 1956.

3. Herrell, W. E., Ruff, J. D. and Bayrd, E. D.: Multiple Myeloma in Siblings, J.A.M.A. 167:1485, 1958.

SCALENE NODE BIOPSIES. S. Lal and G. W. Poole. Lancet 2:112 (July 20), 1963.

Results of 112 scalene node biopsies done at Hammersmith Hospital Chest Clinic over four years are described. The patients selected were those in whom diagnosis was difficult, and this investigation was in no sense routine. Of 112 biopsies, 34 (30.4%) were positive. Fifteen patients had palpable nodes and biopsy produced positive histology in 100%. Biopsy revealed positive results in 20% of the remainder. In carcinoma cases the results were analyzed in relation to histological types and results of bronchoscopic examination. Carcinoma and sarcoidosis are the most likely to yield a positive result. The literature on scalene node biopsies is reviewed. Authors' results agree with other series with one exception. The procedure is valuable in selected cases.

The author reviews the heterogenous group of tumors,—new growth or inflammations which may develop at this anatomic site.

Presacral or Retrorectal Tumors

JOSEPH J. DODDS, M.D., Chattanooga, Tenn.

Presacral masses are relatively rare lesions when one considers the over-all incidence of tumors which may develop in man. Wittaker and Pemberton[1] reported that at the Mayo Clinic, during the period from 1922 to 1936, approximately one patient in every 40,000 admissions was discovered to have this type of lesion. Ross[2] states that in the interval between 1939 and 1946, at Kings County and Meadowbrook hospitals, the incidence was one in every 46,000 admissions. Jackman[3] believes the incidence to be higher since many authors fail to include, in their reports, lesions resultant from inflammatory and neoplastic processes.

The retrorectal region represents a potential space bounded anteriorly by the rectum and posteriorly by the sacrum. The roof is formed by the peritoneal reflection onto the rectum and the floor is made by the levators ani and coccygei muscles. The walls are the lateral rectal stalks and part of the previously mentioned peritoneal reflection.[4] Normally this area contains the sacral and sympathetic nerve plexuses, the middle sacral, iliolumbar, and middle hemorrhoidal vessels, and their accompanying lymphatics. In addition, the presacral area during much of fetal life is the point of fusion of the central nervous system, the skeletal axis, the segmental musculature, and the postanal gut.[5] The anatomic and previous embryologic contents partially explain the origin of tumors in this area.

Jackman[3] classifies presacral tumors in 5 main categories: (1) inflammatory, (2) congenital, (3) neurogenic, (4) osseous, and (5) miscellaneous.

The inflammatory group is composed primarily of abscesses, fistulas, and masses resulting from the use of sclerosing solutions in the treatment of hemorrhoids. Solutions using mineral oil as a vehicle are more likely to produce masses than those using vegetable oils.

The congenital masses include chordomas, teratomas, dermoids, and meningoceles. The chordoma is a tumor of low grade malignancy which seldom metastasizes. Approximately 15% of teratomas will eventually undergo malignant degeneration.[6] Dermoids and meningoceles remain benign lesions. Chordomas are the most common of the congenital variety and are usually found in adult males. Teratomas and meningoceles most often occur in female infants or children. Dermoids and teratoid cysts may be found in individuals of any age and are more frequent in females.[7]

Ependymomas, neurofibromas, neurolemmomas, and ganglioneuromas make up the neurogenic tumors. Ependymomas are the most commonly found lesion of this group and in addition they offer the best prognosis since they are extremely slow growing.[6] Ganglioneuromas are very rare and arise from the ganglion cells of the sacral sympathetic plexus.[8]

The masses comprising the group arising from bone include giant cell tumors, osteogenic sarcomas, cartilagenous tumors, and osteomas. These neoplasms all occur with approximately equal frequency to one another.

The miscellaneous category is made up of all the other masses which may occur in the retrorectal area. Included in this division are the lipomas, myelomas, leiomyosarcomas, fibrosarcomas, lymphomas, and metastatic carcinomas.

Various surveys have shown that 62% of presacral tumors are of congenital origin, 11% are inflammatory, 11% are neurogenic, 9% are osseous, and 7% fall into the miscellaneous category.[5] (Table 1.)

Table 1

Differential Diagnosis of Presarcal Tumors Represents a Summary of the 161 Cases Reported in the Literature Up To 1953 (5)

Type of Lesion	*Number*	*% of Total*
Inflammatory	18	11%
Congenital	99	62%
A) Chordoma (51)		
B) Dermoid (29)		

C) Teratoma (19)			
Neurogenic		18	11%
A) Ependymoma (12)			
B) Neurofibroma (5)			
C) Neurolemmoma (1)			
Osseous		14	90%
A) Giant cell tumor	(5)		
B) Osteogenic sarcoma	(4)		
C) Cartilage tumor	(4)		
D) Osteoma	(1)		
Miscellaneous		12	7%
A) Metastatic cancer	(4)		
B) Myeloma	(3)		
C) Others	(5)		

The *symptoms* produced by retrorectal tumors occur as a result of pressure on adjacent structures. Initially symptoms are of a minor nature consisting of mild low backache and rectal or bladder dysfunction. As the neoplasm increases in size, it exerts destructive pressure on the nerves of this area which further embarrasses rectal and bladder function, it may erode the ventral surface of the sacrum, as well as completely occlude the rectum. In advanced cases the patient may have symptoms consistent with intestinal obstruction, severe low back pain, as well as parasthesias and anesthesias in the perineal area, legs, or feet. If the process is not arrested, partial or complete paralysis of either or both lower extremities may result.[9] Since presacral tumors are slow growing and the symptoms insidious in onset, patients are apt to present themselves late in the course of the disease. By this time the tumor is usually quite large, the possibility of cure reduced, and the recurrence rate high.[10] Most neoplasms in this area are within reach of the examining finger. Therefore, if these lesions are to be discovered early enough to offer the patient adequate treatment, routine digital rectal examinations must be done on all patients. Since the tumors rarely involve the rectum, per se, proctosigmoidoscopy and x-ray studies offer little, except to rule out primary rectal lesions with local extension and as an aid in estimating the size of the tumor.

In the past, the results of *treatment* of these tumors has been unsatisfactory and recurrence rates are high. Usually the surgeon is unable to remove all of the lesion and the patient is given postoperative x-ray therapy. Unfortunately, the majority of these tumors are radioresistant.[10] (Table 2.) Ideal treatment would be the complete eradication of the lesion without mortality or neurologic deficit. Preoperatively the patient should be in the best general physical condition possible and most surgeons believe the bowel should be sterilized. There are several methods of approaching these masses, such as, abdominoperineally, anterior transperitoneally, or through a posterior incision extending from the lumbosacral area to just above the anus. In almost all cases it is necessary to remove the coccyx and the lower portion of the sacrum. The fourth and fifth sacral nerves may be sacrificed bilaterally without postoperative neurologic deficit.[11] If, in addition, one cuts the pudendal or the third sacral nerve on one side only, there is a resultant unilateral sensory deficit but rectal and bladder function remain relatively normal. If both pudendals or third sacral nerves are sacrificed there is bilateral sensory loss and, what is more important, marked impairment of vesicle and rectal function. All operative sites should be drained due to the large dead space remaining. Surgery in this area involves the fields of general, orthopedic, and neurosurgery and therefore a specialist from each field should be present at the time of operation if the patient is to receive the best possible care.

Table 2

Degree of Radiosensitivity of Presarcal Tumors

Type of Neoplasm	*Radiosensitivity*
(1) Carcinoma	Non- to moderately sensitive
(2) Sarcoma	Non- to moderately sensitive
(3) Chordoma	Non- to moderately sensitive
(4) Epitheloma	Very sensitive
(5) Ependymoma	Non- to moderately sensitive
(6) Ganglioneuroma	Non- to moderately sensitive
(7) Myeloma	Non- to moderately sensitive
(8) Glioma	Non- to moderately sensitive
(9) Ewing tumor	Moderately sensitive
(10) Giant cell tumor	Moderately sensitive
(11) Neuroblastoma	Very sensitive

In conclusion, retrorectal or presacral tumors, although relatively rare in occurrence, must be always kept in mind since the only hope of cure rests in early diagnosis. These tumors produce few if any early symptoms. Surgical results are usually unsatisfactory and recurrences are common. Finally x-ray therapy is of little or no value in the majority of cases.

References

1. Wittaker, L. D. and Pemberton, J. de J.: Tumors Ventral to the Sacrum, Ann. Surg. 107:96, 1938.

2. Ross, S. T.: Sacral and Presacral Tumors, Am. J. Surg. 76:687, 1948.

3. Jackman, R. J.: Lesions of the Lower Bowel, Springfield, Ill., Charles C. Thomas, 1958, pp. 213-225.

4. Jackman, R. J., Clark, P. L. III and Smith, N. D.: Retrorectal Tumors, J.A.M.A. 145:956, 1951.

5. Mayo, C. W., Baker, G. S. and Smith, L. R.: Presacral Tumors: Differential Diagnosis and Report of a Case, Proc. Staff Meet. Mayo Clin. 28:616, 1953.

6. Myers, W. C. and Myers, W. M.: A Review of Presacral Tumors and Report of a Case of a Presacral Dermoid Cyst, Am. Surgeon 20:1180, 1954.

7. Laird, D. R.: Presacral Cystic Tumors, Am. J. Surg. 88:793, 1954.

8. Rowe, R. J. and Brock, D. T.: Surgical Management of Presacral Tumors, Am. J. Surg. 92:710, 1956.

9. McBurney, R. P., Johnson, D. A. and Ray, R. B.: The Surgical Management of Sacral and Presacral Tumors, Am. Surgeon 21:1243, 1955.

10. Bromberg, F. and Wexler, D. J.: Retrorectal Tumors, New York J. Med. 53:1876, 1953.

11. MacCarty, C. S., Waugh, J. M., Mayo, C. W. and Coventry, M. B.: The Surgical Treatment of Presacral Tumors: A Combined Problem, Proc. Staff Meet. Mayo Clin. 27:73, 1952.

ALKAPTONURIA. R. E. Oda. Amer. J. Dis. Child. 106:301 (Sept.), 1963.

Alkaptonuria was observed in two siblings of Filipino extraction. The original family observations were staining and difficulty in keeping the patients' clothing clean. The diagnosis was supported by urine examination which demonstrated (1) a positive Fishberg test, (2) an evanescent blue color with FeCl3, and (3) a dark brown ring produced by adding strong alkali. Early diagnosis and proper advice can help the family keep these children's clothing relatively clean looking. Further, their syndrome will not be confused with diabetes, rheumatoid arthritis, or gout.

CLINICAL NOTES FROM THE TENNESSEE HEART ASSOCIATION

THE PROBLEM OF CORRECT DIAGNOSIS IN RHEUMATIC FEVER

JOSEPH A. LITTLE, M. D.,*
Nashville, Tenn.

The accurate diagnosis of rhemuatic fever has always been a difficult one since many of the diagnostic criteria are based on subjective interpretation of historical data. This is particularly true when patients who have recovered from an "acute attack" are referred to cardiac centers. In a recent report by Blackman (1) "only 65 of 100 referred patients had a history of signs and symtoms sufficient to satisfy the modified Jones criteria" (2) Similarly, the Grossman and Athreya (3) reported on the errors of diagnosis and stressed the need for strict application of the diagnostic criteria. Feinstein et al (4) emphasized the importance of an accurate diagnosis before subjecting the patient to a prolonged prophylactic treatment. This paper discusses the more common causes of the erorrs of correct diagnosis in rheumatic fever and a practical approach to their correction.

In general, the diagnosis of any disease such as rheumatic fever is difficult even when the modified Jones criteria (2) are strictly adhered to. This is especially true since there are some major exceptions to the general assumption that the presence of two major or one major and two minor manifestations indicate strongly the probability of the presence of acute rheumatic fever. It is important to realize that no strict interpretation of these criteria is recommended. However, with only rare but very important exceptions the diagnosis of rheumatic fever should not be made unless the requirements of these criteria are met.

The presence of a single major manifestation, chorea, should be accepted as diagnostic of rheumatic fever. In any event, a patient who has had chorea must be treated as a patient who has recovered from his first bout of rheumatic fever and the institution of a prophylactic regime is essential. Space does not allow a full discussion of this problem, but suffice it to say that our present resources do not allow a differentiation between rheumatic and so-called non-rheumatic chorea.

Probably the greatest source of error in the diagnosis of rheumatic fever is the presence of polyarthritis, fever and increased sedimentation rate, or other minor manifestations such as presence of C-reactive protein or a preceding "strep throat". The latter is rarely confirmed by bacteriological investigation but even if such is the case the presence of polyarthritis with two minor manifestations may be the result of many other diseases. In order for polyarthritis to be properly interpreted as a major manifestation, it must be migratory or must respond dramatically to aspirin.

Carditis frequently occurs alone as a major manifestion of rheumatic fever today. Errors usually occur from the overdiagnosis of carditis by "the appearance of a soft non-specific systolic murmur". This murmur may be moderately loud but generally regresses in intensity with the disappearance of fever. Carditis as a major manifestation should be reserved for those patients with the development of tumultuous rhythm, the development of a diastolic murmur, a persistent tachycardia despite bed rest (the sleeping pulse rate is an excellent guide), occurrence of a pericardial friction rub, electrocardiographic changes, or cardiac enlargement by x-ray. Despite the occurrence of a murmur for the first time, the child with a pulse rate that varies with temperature and is consistently below 90 when the child is asleep and does not develop any of the other criteria must not be considered in any differential diagnosis of rheumatic fever may be ameliorated or dramatically helped by steroids. This is generally not true of acetylsalicylic acid, particularly in the patient with polyarthritis without evidence of moderately severe carditis.

Summary

1. Within few exceptions the diagnosis of Rheumatic Fever should not be made unless the Jones Modified Criteria are fulfilled, particularly since such a diagnosis necessitates a prolonged prophylactic regime.
2. The major exceptions to the above criteria are discussed and suggestions made regarding their interpretation.

*From the Department of Pediatrics, Vanderbilt University School of Medicine, Nashville.

Modified Jones Criteria

Manifestation

Major	*Minor*
Carditis	Fever
Migratory polyarthritis	Arthralgia
Chorea	Prologation of P-R interval on EKG
Subcutaneous nodules	Presence of acute phase reactants
Erythema marginatum	Elevation of ESR
	Presence of beta-hemolytic streptococcal infection
	Confirmed previous attack of rheumatic fever

References

1. Blackman, N. S.: Diagnosis Problem in Rheumatic Fever, Ped. 31:969, 1963.

2. American Heart Association: Jones Criteria (Modified) for Guidance in Diagnosis of Rheumatic Fever. Report of Committee on Standards and Criteria for Programs of Care of Council on Rheumatic Fever. Mod. Conc. Cardiov. Dis. 24: 291, 1955.

3. Grossman, B. J. and Athreya, B.: Sources of Errors in Diagnosis of Acute Rheumatic Fever in Children, J. A. M. A. 182: 830, 1962.

4. Feinstein, A. R., Taranta, A. and DiMassa, R.: Errors in Diagnosis of Acute Rheumatic Fever. New York J. Med. 60: 2835, 1960.

MAPLE SYRUP URINE DISEASE. D. Lonsdale, R. D. Mercer, and W. R. Faulkner. Amer. J. Dis. Child. 106:258 (Sept.), 1963.

Maple syrup urine disease was observed in two unrelated children. One patient was a boy who had been normal until after a head injury at the age of 16 months. The other was a four-week-old infant who failed to thrive, but responded clinically to an artificial diet. Leucine-loading tests were performed on the parents of both children and on one normal sibling, in an attempt to expose the heterozygote. Results demonstrated that the carrier of the trait is not able to metabolize leucine as well as the normal person.

STAFF CONFERENCE

Vanderbilt University Hospital*

Intestinal Obstruction

DR. SAM E. STEPHENSON, JR.: Dr. James Overall will present the case today.

DR. JAMES OVERALL, JR.: This was the first Vanderbilt University Hospital admission of B. O., a 2-day old male infant from Murfreesboro, Tennessee, who was referred because of "possible bowel obstruction." The family history and past history are noncontributory. The pregnancy was full-term and uncomplicated. Labor lasted 24 hours and was uneventful; the delivery was in the vertex position and uncomplicated. Cry and respirations were immediate. The birth weight was 7 lb. 5 oz. The baby was born in the Rutherford County Hospital.

Present Illness. The baby did quite well until the 2nd day of life when he began to vomit his feedings and the abdomen became quite distended. There had been no bowel movements. Rectal examination at this time was unrevealing. A plain film of the abdomen showed dilated loops of bowel. A head-down film was taken which showed gas patterns stopping in the region of the distal sigmoid. The patient was referred to Vanderbilt University Hospital because of the vomiting and distended abdomen.

Physical Examination. P. was 140, R. 50, T. 99.4°. The patient was a pale, ashen-colored, term infant with shallow respirations. The lungs were clear; there were no rales, nor murmurs. The abdomen was quite distended and tympanitic, but there were no palpable masses. Peristalsis was quite active. Rectal examination revealed no obstruction up to the second interphalangeal joint; there was no meconium on the glove. The remainder of the physical examination was within normal limits.

Hospital course. The patient was started on intravenous fluids (one-third strength balanced solution with penicillin and chloramphenicol), and nasogastric suction was instituted. Blood electrolytes were found to be within normal limits. Plain film of the abdomen showed dilated loops of bowel. Sigmoidoscopy, performed by Dr. Stephenson shortly after admission, revealed a plug of stool which was described as thick, sticky, and with the gross appearance of whipped honey, characteristic of material recovered in mucoviscidosis. It was decided to observe the baby over-night assuming that this meconium plug might be the cause of the obstruction. By the next morning the baby had not passed any stool and the abdomen was still quite distended.

DR. AMOS CHRISTIE: It was obvious that the baby had an intestinal obstruction. It seemed that the most likely diagnosis was that of meconium ileus. Certainly, with an obstruction in the new-born one should have a high index of suspicion concerning this. There is the possibility of course the baby had a congenital malformation some place in the large or small intestine. So at this point we enlisted the help of our radiologist, Dr. Klatte.

DR. EUGENE KLATTE: On the supine view of the abdomen there is noted to be definite dilatation of bowel. There is a small amount of gas present within the rectum (Fig. 1). It is impossible on a plain film of an infant to differentiate small from large bowel. This is in contradistinction to the adult where the typical haustral marking of the colon helps to differentiate the two. The fact that there is a small amount of gas present within the rectum may be secondary to previous sigmoidoscopic examination which this child has had. There is noted to be a rather granular appearance of the abdomen in the right lower quadrant which was thought to be the result of intestinal contents. This appearance may be seen with meconium ileus although it



FIG. 1. There is marked dilatation of bowel. (It is usually impossible to differentiate small from large bowel in an infant.) There is a small amount of gas in the rectum. The right abdomen has a granular appearance which represents intestinal contents.

*From the Departments of Surgery, Pediatrics and Radiology, Vanderbilt University School of Medicine, Nashville, Tennessee.

From the Executive Director

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Chances Good for Further Expansion of MAA Program

● Recent discussions between the President of TMA and the Commissioner of Public Welfare of Tennessee, indicate that an increase in the income limits for persons 65 years of age and over are good. The Tennessee Medical Association originally recommended that the income limits be raised from $1,000 to $1,300 for single persons and from $1,500 to $1,800 for married persons over 65. By raising these income limits, it is estimated that approximately 140,000 aged persons would be eligible for the medical assistance to the aged program in Tennessee as compared to 110,000 under the present limits. Present conditions in the program indicate that this expansion will be made by November 1.

In addition, another recommendation of TMA has been completed by the Department of Public Welfare wherein Mr. James N. Calway has been named Medical Services Director for the State Welfare Department. Mr. Calway will work with the medical assistance programs administered by the Welfare Department.

Telephone Directory Listings by Physicians

● TMA has been notified by the Executive Officer for the State Licensing Board for the Healing Arts, that violations exist in the telephone directories of the State which not only involve doctors of medicine, but also osteopaths, opticians, optometrists and others. This Association has been requested to assist in correcting this problem. The listing of "Clinics—Medical" in the yellow pages of the telephone directories of the state is a violation of the Healing Arts Law. Each County Society is requested to assist the Licensing Board in eliminating the clinic listings from the directories.

A letter to all county medical societies is being forwarded with a copy of the letter from the Licensing Board for the Healing Arts. County Societies are urged to clear up this unethical and unlawful matter relating to telephone directory listings.

County Medical Society Activities

● The heart of medical organization is the county medical society. Through the service of America's physicians, great strides have been made in bringing better medical care to the people of the nation. The programs and activities sponsored by the county medical society are most important to all concerned—physicians, the public, community health organizations, and medical associations. For years, the American Medical Association has maintained a file of data and information concerning these activities of county medical societies. All available sources have been utilized, with a bi-annual survey serving to keep current data available for use by medical society officers. The most recent survey includes detailed data on society activities. Some 1,200 county societies participated in the survey, representing 62% of the total number of organized county societies in the United States. The survey represented in excess of 160,000 physician members.

A copy of the 1963 Nationwide Survey on County Medical Society Activities will be mailed to all secretaries of the forty-nine county medical societies in Tennessee.

Insurance Committee To Forward Information To Membership on H.R. 10

● On September 15, the Committee on Insurance of TMA reviewed all of the coverage contained in the five group insurance plans benefiting members of TMA. It was found that all plans are functioning well with a majority of the membership of the Association participating in several of the plans.

The Committee approved a letter for mailing to the membership containing information on the subject called for in Resolution No. 6, adopted by the House of Delegates last April. Resolution No. 6 directed an appropriate committee to make a study of H.R. 10 and its provisions and make a report to the membership as to its effect as well as other investment or retirement plans as recommended, that tie in with H.R. 10 (Keogh legislation).

Participation in Tennessee Plan Totals 1,225,993

● A recent survey of the underwriters of the Tennessee Plan indicate that the program has increased by more than 100,000 over the past two years. Figures reported by the underwriters of the plan have been tabulated and the following report of enrollment is furnished for the information of TMA members.

EMPLOYEES	DEPENDENTS	TOTAL
475,422	749,931	1,225,993

Underwriters reporting for the optional riders of In-hospital Medical Care, Anesthesia, and Radiology, show 1,554 employees, 2,035 dependents, for a total of 3,589 covered under the optional benefits as provided in the Tennessee Plan.

No House Vote on Medicare This Year

● On September 18th, Representative Wilbur Mills of Arkansas, Chairman of the House Ways and Means Committee, told the House Rules Committee that there would be no House action this year on H.R. 3920, the current King-Anderson Bill. The Ways and Means Committee has spent virtually all of this session on the President's tax proposal which has held highest legislative priority. The Mills statement, however, does not change the possibility of Committee hearings on H.R. 3920 this year. It is anticipated that hearings will begin late in October. The Tennessee Medical Association will present a statement and testimony opposing H.R. 3920, when the hearings are conducted.

Information Notes

● A sharp increase in the ratio of physicians to population based on 1963 figures is revealed by the AMA—current ratio is 146.7 per 100,000, an increase of 8.9 over 1960. . . . Plans are materializing for conducting the 1964 Annual Meeting in Memphis. The dates are April 12-15. . . . Does your County Medical Society have an "Operation Hometown" plan in action? If so, it will give your society suggestions, ideas and material which can be adapted locally to arousing all citizens to take part in pre-election campaigns and to help the medical profession in the fight against compulsory government health insurance—King-Anderson Bill.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

Mental Health Congress Set for Nashville Nov. 13-14

● The First Tennessee Congress on Mental Illness and Health will be conducted in Nashville on Wednesday, Nov. 13 and Thursday, Nov. 14, with headquarters at the Hermitage Hotel. The program will begin at 1:30 p.m. Wednesday, with a social hour and dinner climaxing the day. Thursday's program will begin with a series of eight breakfast roundtable programs and the afternoon session will conclude at 4:00 p.m.

Three addresses by nationally known speakers will be given Wednesday afternoon. Lindsay Beaton, M.D., of Tucson, Arizona, Vice-Chairman of the AMA Council on Mental Health, will speak on "Mental Illness and the Physician". Mr. Philip E. Ryan, Executive Director, National Association for Mental Health, will speak on "Cooperation in Mental Health" and Robert Garber, M.D., Speaker, Assembly of American Psychiatric Association, will address the Congress on "Organization for Mental Health—Action at the State Level."

Breakfast roundtables will be held Thursday morning with registrants choosing from a varied list of topics. Discussion leaders for the groups will include: Jack Sparer, M.D.; Nat Winston, M.D.; Wayne Bell, D.D.; Joseph C. Denniston, M.D.; Frazier Harris; John Forrest; Robert Stepback, Ph.D.; and Leonard Morgan, Ph.D.

Addressing the Congress Thursday afternoon will be Kenneth Appel, M.D., President, Joint Commission on Mental Illness and Health, with the topic "Action for Mental Health". Joseph J. Baker, M.D., Commissioner, Tennessee State Department of Mental Health, will speak on "What's Happening on Tennessee", and William F. Sheeley, M.D., Chief, APA-GP Program, will speak on "Information and Education in Mental Health".

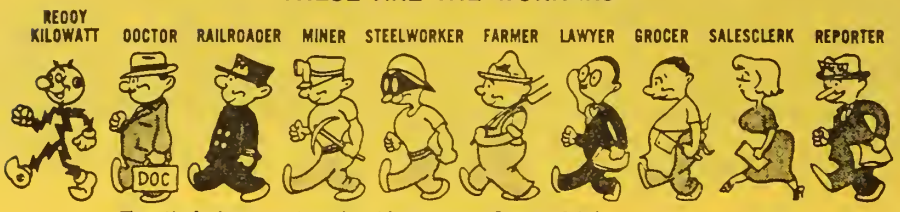
Frank H. Luton, M.D., Chairman of the Tennessee Medical Association's Committee on Mental Health and the Congress' Program Committee Chairman, said: "The goals for the Congress can be expressed simply, as follows—Mental Illness is the greatest health problem in the Nation. To solve it will require all the resources of professional and lay personnel trained in the field. The Congress hopes to bring persons together to find out what each knows about the problem, and where his knowledge can best be put to work. We hope we may add something to the experience of the registrant in this meeting that will increase his effectiveness".

Sabin Vaccine Program Under Way To K-O Polio

● The first dose of the Sabin oral polio vaccine has been administered to thousands of Tennesseans through the efforts of some 28 county medical societies. Sunday, October 6, was the kick-off date for the first of three doses of the vaccine. Several other Tennessee county medical societies are planning a mass program with the starting date this Fall. Memphis and Shelby County Medical Society has voted to conduct the program and plans are being made to immunize the over 600,000 residents of their area.

The Story of Ten Little Free Workers

THESE ARE THE WORKERS



Ten little free workers in this country fine and fair
But if you cherish your freedom—worker have a care!
Ten little free workers—Reddy was doing fine
Until the socialists got him—then there were nine.



Nine little free workers laughed at Reddy's fate
Along came federal medicine—then there were eight.



Eight little free workers thought this country heaven
But the government took over the railroads, then there were seven.



Seven little free workers—'til the miners got in a fix
Uncle said coal's essential and took over leaving six.



Six little free workers 'til the day did arrive
The steel mills too were federalized—then there were five.



Five little free workers—but the farmers are free no more
The farms have been collectivized—that leaves only four.



Four little free workers 'til the government did decree
All must have free legal advice—then there were three.



Three little free workers—the number is getting few
But with government groceries selling food—then there were two.



Two little free workers—our story's almost done
With clerks at work in federal stores—that leaves only one.



One little free worker—the reporter son-of-a-gun
Mustn't criticize government—so now there are none.



Ten little workers—but they are no longer free
They work when and where ordered, and at a fixed rate you see,
And it all could have been prevented if they'd only seen fit to agree
And work together instead of saying "it never can happen to me!"

Yes . . . this could happen to you. This little story could come true unless each of us works to preserve private enterprise, and to keep the government from competing with its own citizens and taxpayers.

Printed as a Public Service. For Reprints of This Nationally-Known Advertisement Write—Potomac Edison Co., Hagerstown, Maryland.

has been described in other conditions.

DR. WILLIAM YOUNG: Dr. Klatte, can you tell anything about the etiological agent from the plain film?

DR. KLATTE: There are certain points which help in the differential diagnosis. With the appearance that we have, one would consider three primary conditions. The first would be meconium ileus, the second would be ileal atresia and the third would be infantile Hirschsprung's disease. The fact that there is a granular appearance in the right lower quadrant is somewhat in favor of meconium ileus, this sign being present in approximately 40% of cases. An upright film was not obtained in this case. It perhaps would have been of value. In meconium ileus there frequently is no evidence of fluid levels on the upright film while fluid levels are routinely seen with ileal atresia and infantile Hirschsprung's. This presumably is due to the lack of fluid in the small bowel secondary to abnormality of the pancreatic and intestinal glands. It has been our experience that a barium enema is of considerable help in making the differential diagnosis and this was performed on this child. (Fig. 2.) It was noted that the colon was quite small. The colon was filled with considerable difficulty and could only be filled over to the ascending colon. The ascending colon was deviated medially and superiorly. A dilated loop of small bowel was present in the right lower quadrant. The small colon would exclude Hirschsprung's disease. The fact that the colon was difficult to fill would be strongly indicative of meconium ileus since this is routine. It has been my opinion that in patients with ileal atresia the colon is usually empty and fills with ease. The fact that the ascending colon is deviated medially and superiorly, and the fact that there is a large loop of small bowel in the right lower quadrant makes one consider the possibility of superimposed volvulus of the small bowel as may be seen as a common complication of meconium ileus. In summary it is felt that this child has a definite small bowel obstruction. Because of the fact that the colon contains meconium and was difficult to fill with a barium enema is strongly indicative of meconium ileus. This may be complicated by volvulus of the distal small bowel.



FIG. 2. The colon was filled with moderate difficulty. The ascending colon is displaced medially and superiorly, and there is marked dilatation of a loop of bowel in the right lower quadrant.

DR. CHRISTIE: By this time it is quite clear we have confirmed the impression of an intestinal obstruction in the small bowel. Dr. Young, has the laboratory been of any help to us to resolve this point?

DR. YOUNG: Not at this point. We were faced with the possible diagnosis raised by Dr. Klatte and felt that exploration was indicated. Could we have the operative findings?

DR. STEPHENSON: As previously mentioned, the baby was subjected to a sigmoidoscopic examination on the night of admission, at which time the 5 mm. infant sigmoidoscope was passed with ease and the distal colon appeared perfectly normal and was distensible. At about 10 cm. a large plug of beaten honey-colored material was removed which weighed roughly 5 Gm. After this was extracted about 12 to 14 hours was given to see if meconium would be passed by the child. The following morning with no stool having been passed a barium enema as reported by Dr. Klatte was obtained. It was still the thought that

this child had meconium ileus, but also a proximal volvulus might have occurred which is common in these particular children. The baby was then prepared for the operating room and where through a left paramedian incision the abdominal cavity was opened, the peritoneal cavity was explored. Immediately upon opening the abdominal cavity a small contracted colon was found. There were large loops of dilated small intestine. There was a band from the mesentary of the small bowel to the mesentary of the right colon under which the distal ileum had herniated and undergone a 360° rotation on itself. Therefore, our initial impression was an internal hernia with volvulus. However, in attempting to free-up the internal hernia and reduce the volvulus it became apparent that there was also some distal ileum that was collapsed and a blind end of distal ileum was found. Further exploration then revealed a large bulbous dilatation to the midileum, the tip of which was gangrenous and thorough dissection revealed that the lower ileum was the site of an atresia. It was necessary to resect the gangrenous portions of the proximal ileum and a side-to-side anastamosis was fashioned between the large proximal ileum and the collapsed distal ileum approximately 8 cm. proximal to the ileocecal valve. The relative sizes of these two pieces of small intestine were a diameter of approximately 6 cm. in the proximal ileum and approximately 8 mm. in the distal ileum. The abdomen was then closed; the patient tolerated the procedure well and was sent to the recovery room, following which he continued to do quite well. The question in our minds at the operating table was the fact that the amount of material in the distal colon seemed excessive for a pure classical ileal atresia, and the possibility of an internal hernia in utero with necrosis of the intestine and secondary autodivision with resultant appearance of an ileal atresia. Dr. Christie, do you have any comments concerning this possibility or any experience with previous cases similar to this?

DR. CHRISTIE: Dr. Stephenson, I don't believe that I can comment on the latter question. I would, however, like to say something about this very interesting case because it is a good illustration of something I have observed for a good many years. There is the gratifying salvageability by early and accurate diagnosis of intestinal obstruction in the newborn infant. While much of the dramatic heart surgery is most gratifying, I think that the favorable end results of cases like this represent an even more hopeful phase of pediatric surgery because the patients can be completely returned to normal—something frequently missing in the otherwise marvelous results of heart surgery. I think that we in pediatrics might have done a little bit better on this diagnostic problem, but the case is most complicated and I think that we were fortunate that Dr. Stephenson had an opportunity to explore the baby and come up with the proper anatomic diagnosis while the baby was still in good condition. Now, Dr. Young, from a pediatric standpoint, of course, we may again tonight be confronted with the same problem—that of intestinal obstruction in the newborn infant. Would we be dealing with a congenital band, or an atresia, or with an internal hernia, volvulus, or for that type of intestinal obstruction in the newborn which we refer to as meconium ileus—the type of mucoviscidosis which occurs in the newborn associated with cystic fibrosis of the pancreas? Then my question is, are there aids to the diagnosis of this latter disease available to us in the laboratory?

DR. YOUNG: First of all there is the well described Farber's test which is looking microscopically for the presence of cornified epithelial cells or lanugo hair, but the validity of this test is somewhat in question and is not done routinely here. Other tests that can be done specifically in regard to the answer of mucoviscidosis or fibrocystic disease, are testing the stool for tryptic activity which was done on this patient and showed a normal digestion and also the determination of the chloride content of sweat. We have been able to collect adequate amounts of sweat using the pilocarpine iontophoresis technique during the neonatal period to do this determination. In this case a sweat chloride was done postoperatively and was found to be within normal limits.

DR. STEPHENSON: Dr. McSwain, would

you describe the pathologic findings?

DR. BARTON McSWAIN: The specimen received in the laboratory consisted of a 12 cm. length of small intestine. One end was atretic measuring 1 cm. in length. The entire specimen was greatly dilated, the circumference being 11 cm. There was a hemoglobin discoloration of the distal serosal surface suggesting early gangrene. The bowel wall appeared slightly thickened and the lumen contained normal appearing meconium. Microscopic examination confirmed the gross appearance of necrosis of the bowel wall since both acute and chronic inflammatory cells were seen in addition to the gangrenous changes.

DR. CHRISTIE: Dr. Klatte, I have already alluded to the need for early and accurate diagnosis and I would like to relate this to the proper use of a plain film of a baby's abdomen. Would you care to comment on this?

DR. KLATTE: Radiographic methods are of considerable value in the diagnosis of intestinal obstruction of the newborn. While, as in this case, we may be mistaken or incomplete in the etiology of the condition, the diagnosis of complete small bowel obstruction can be made with confidence so there is not a prolonged delay in definitive therapy. Unfortunately even today the mortality of intestinal obstruction of the newborn approaches 50%. For this figure to be significantly lowered, the diagnosis will need to be made earlier before the infants' limited reserve is exhausted. This requires prompt radiologic referral by a clinician with a high index of suspicion.

DR. STEPHENSON: Dr. Overall, would you describe the postoperative course of the patient as far as any particular problems that might have arisen?

DR. OVERALL: The postoperative course was reasonably uneventful. Electrolytes determined on the day after operation were within normal limits. On the night of the first postoperative day the baby passed his first small stool consisting of clear mucus mixed with barium. By the second postoperative day he passed several more stools containing some meconium. The nasogastric tube was removed on the third postoperative day and the baby was started on oral fluids. He took his feedings well and the intravenous fluids were discontinued. The baby was continued on intramuscular penicillin and chloramphenicol for three more days. Feedings were gradually increased and the remainder of the hospital course was uneventful. The baby was discharged on standard evaporated milk formula with a weight of 6 lbs. 9½ oz.

DR. CHRISTIE: I am always pleased to be wrong when the outcome is so favorable as in this case. I hope it is clear that I thought this baby had meconium ileus from the finding of that sticky, whipped honey meconium which Dr. Stephenson obtained from the proctoscopic examination. This has been a most useful sign to me in the past and I don't recall a previous example when it has failed. I think Dr. Klatte may have a comment about this and that he would share this feeling with me.

DR. KLATTE: It has been my experience and the experience of others that with meconium ileus the colon is filled with a thick tenacious material so that filling the colon with barium in the usual retrograde manner is difficult. With ileal atresia the colon is empty and fills with ease. This has been a valuable differential point. This case illustrates that any one particular sign may fail.

DR. CHRISTIE: We are both pleased to be wrong with such a favorable outcome.

DR. STEPHENSON: I think that this case is quite unique in that it presented the findings suggestive of meconium ileus to all of us. One must not feel too secure in this diagnosis, however, until other possibilities are ruled out. Had we not been concerned about the dilated loop of small intestine in the right lower quadrant, this child might easily have been placed on pancreatic enzymes with an ultimate fatal outcome. One must rule out the other causes of intestinal obstruction in these cases.

We are rarely faced with the problems this child presented in the abdominal cavity. One rarely encounters the combination of internal hernia, volvulus and ileal atresia in the same infant. This again stresses the importance of a thorough and meticulous exploration.

Incidentally, the child has been seen recently and continues to do extremely well.

CLINICOPATHOLOGIC CONFERENCE

City of Memphis Hospitals*

Glioblastoma Multiforme

Clinical Summary. E. L., a 55 year old negress. was admitted for the third time to the City of Memphis Hospital on May 11, 1963 because of severe headaches, nausea, and vomiting for the preceding 48 hours.

She had a history of having had occasional headaches since 1958. These had become gradually worse and were particularly severe in the last 6 to 8 months prior to admission. She was noticed by her relatives to have become somewhat forgetful and to have had a few "black-out" spells. Initially the headache was localized primarily in the occipital area radiating to the rest of the head and neck. There were periods of severe exacerbations, but she complained of a dull ache most of the time. She had obtained some relief from the use of aspirin, but recently this medicine did not help.

Past History. She was first admitted to the City of Memphis Hospitals in October of 1946 for supravaginal hysterectomy, left salpingo-oophorectomy and right oophorectomy for a serous cysto-adenoma of the ovary. She was discharged after an uneventful hospital course. A positive blood Kahn test was reported in 1947.

In March, 1962, she received a complete study in the out patient department for the complaint of headaches, which had become severe during the preceding three weeks. She had a B.P. of 195/110 and a systolic murmur at the level of the low neck. An EKG. demonstrated bradycardia and nonspecific S-T and T wave changes. Hematologic examination showed 3,600 WBC. with 35% P.M.N., 61% lymphocytes and 4% monocytes. The serum V.D.R.L. was positive to 2 dilutions. Serum cholesterol was 324 mg. per 100 ml. She was diagnosed as having syphilitic cardiovascular disease, hypertension, and headache possibly aggravated by emotional strain. She received antisyphilitic therapy and was thought to be improved after a follow-up visit.

In Dec. 1962 she was readmitted to the Hospital from the neurosurgery out patient clinic because of exacerbations of her headache for the previous two to three days and one "falling-out spell." The possibility of subarachnoid hemorrhage was entertained. A lumbar puncture revealed an opening pressure of 90 mm. of water, no cells, and a negative Pandy test. Skull x-ray films were negative. Bilateral arteriograms were interpreted as negative. She was discharged with no definite diagnosis of her disease of the central nervous system.

Physical examination on her last (third) hospital admission revealed the following relevant findings: mild cardiomegaly, a grade II systolic murmur at the base, a B.P. of 190/96, and a pulse of 50 per min. She was lethargic but could be aroused and was well oriented and cooperative. Her neck was supple. There was mild anisocoria with the left pupil larger than the right, mild ptosis of the left eyelid, but no papilledema. The deep tendon reflexes were hyperactive in the right arm. Babinski signs were present bilaterally but more evident in the right side. There was no incoordination. There was decreased sensation to pin prick on the right side of the body.

An EKG. showed left ventricular hypertrophy and bradycardia. The serum V.D.R.L. was nonreactive. The hematologic examination revealed an hematocrit of 38%, an erythrocyte sed. rate of 10 mm. per hr., and a WBC. count of 16,600 per cu. mm., with a shift to the left. Examination of the spinal fluid revealed a normal opening pressure, a 1+ Pandy, a protein count of 35 mg.%, faint xanthochromia, and 3 WBC. (1 neutrophil and 2 red cells). Her blood chemistries revealed a bicarbonate of 20; chlorides of 103; glucose of 135, potassium of 4.6; sodium of 137, and a urea of 13 mg. A P.B.I. was 5.5 mcg. Urinalysis was normal. Skull and chest x-ray films were negative except for widening of the mediastinum, possibly due to straightening of the aorta. The EEG., arteriograms, and brain scan with Hg^{203} will be presented.

On May 15, 1963 she had bilateral parieto-occipital burr holes in preparation for ventriculography, but expired before the air was introduced.

Clinical Discussion

DR. N. GOTTEN (Neurology): There are several important data in the protocol concerning past history which I will mention. In the first place, there was a positive Kahn test in 1947. When she was seen in March of 1962 there was still serologic evidence of a luetic condition, and she was admitted for antiluetic therapy. I would also like to emphasize that in December of 1962 the patient was in the hospital with hypertension and it was thought that she might have had a subarachnoid hemorrhage, and diagnostic tests were made at that time. In May of 1963 she had several symptoms and signs that are important, in that her blood pressure was not elevated, but her pulse was slow. She was lethargic, had ptosis of the left eyelid, hyperactive reflexes of the right arm, and bilateral Babinski reflexes. At that time certain diagnostic tests were started. On the 15th the patient was prepared for ventriculography, but before it

*From the Departments of Neurology, Pathology and Radiology, University of Tennessee, College of Medicine, Memphis, Tenn.

was accomplished the patient expired. I would like to know if there were any problems with anesthesia, was it done under local or general; were the needles ever inserted or not? A patient with a high intracranial pressure or with hypertension may tolerate a general anesthetic poorly.

One has to take into consideration as to whether or not the positive Kahn test as far back as 1947 had anything to do with the presenting symptoms. When she came into the hospital the last time the V.D.R.L. was nonreactive. We must keep in mind that this test may make absolutely no difference, for in persons who have had syphilis for many years as many as 50% may have negative spinal fluid serologic tests. Although in this patient the negative serology was on the blood, and I would still not be too concerned about whether or not syphilis was present. The spinal fluid opening pressure was normal. A normal opening pressure is somewhat more in keeping with cerebral thrombosis than with either neoplasm or an intracerebral hemorrhage. There was no increase in the cells in the cerebrospinal fluid, which is against any type of meningeal involvement. Electroencephalograms, angiograms, and isotopic brain scans were done and will be presented shortly.

Burr holes were placed in preparation for a ventriculogram. This was done at the same time the pulse was reported as 50 per min. So we know we have one or two things:—the patient was either having some respiratory difficulties from increased intracranial pressure or else the very slow pulse was indicative of a lesion which ordinarily one would think about as being in the posterior fossa, though we have no evidence of such. That is essentially the data with which we have to deal. Dr. Lemmi, was there any indication as to what happened at the time she had the burr holes, and were they done under local or general anesthesia?

DR. LEMMI (Neurology): The burr holes were done under general anesthesia.

DR. GOTTEN: That makes it difficult to say with certainty whether or not the patient died because of her condition, or whether the general anesthesia was just enough to tip her into decompensation. I wonder why the procedure was not done under local anesthesia. It isn't mentioned in the protocol as to why they decided to give her a general anesthetic when she was in a critical condition.

I think this woman probably had a neoplasm with secondary hemorrhage into it, and that the tumor mass probably extended down toward the mid-brain, though this is not necessary. What type of neoplasm might we be dealing with? I think that there is no indication that we are dealing with a "benign" tumor. It almost certainly is not a meningioma, Schwannoma, or pituitary adenoma, as all of these would have been discovered in the routine tests, or in the previous arteriogram. The symptoms came on relatively rapidly, and we have to think of a rapidly growing neoplasm such as a glioblastoma multiforme. In a number of instances such tumors have fresh hemorrhages into them which causes the tumor to expand so rapidly that the patient will have a very acute and critical change in symptoms. That would account for the pulse of 50 and the fact that we had evidence of a lesion involving the mid-brain. I would not want to be held too tightly as to whether or not the neoplasm was in the mid-brain itself or whether the mid-brain lesion was due to the herniation of the temporal lobe with pressure against the mid-brain. I believe the latter is more probable.

Dr. Lemmi, would you tell us at this time what you found on the electroencephalogram?

DR. LEMMI: There is asymmetry between all of the left and right sided leads with depression and poor regulation in the left posterior leads (motor-parietal and occipital) and continuous moderate voltage irregular delta activity (2-3 per second) in the left temporal and frontal leads. (Fig. 1.) The findings indicate an acute encephalopathy in the region of the frontotemporal areas, compatible with a space-occupying lesion.

DR. GOTTEN: I would not like to see the arteriograms which were done on the last two admissions, and the radioisotope scan. We have had some considerable experience with brain scanning in the last number of months and feel that it is very helpful in the determination of brain tumors.

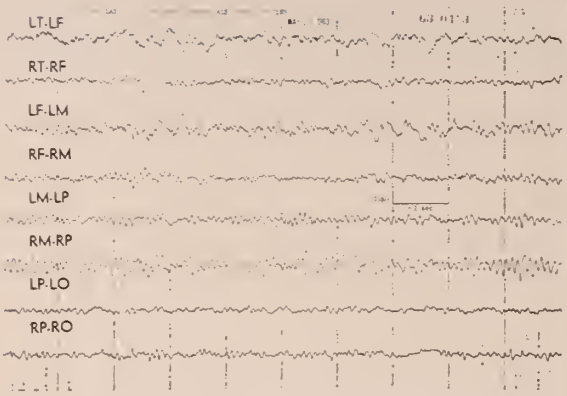


FIG. 1. EEG. indicating acute encephalopathy of left frontotemporal areas compatible with a space-occupying lesion.

DR. COLBY GARDNER (Radiology): The cerebral angiograms made in 1962 were considered to be within normal limits. This is true even in retrospect.

On the angiograms of May 12, 1963 there is a slight left-to-right shift of the anterior cerebral arteries. The left middle cerebral complex is displaced upward while the posterior cerebral artery is displaced downward. (Fig. 2.) The venous phase clearly demonstrates a tumor stain in the left temporoparietal area. (Fig. 3.) The radioactive mercury brain scan dramatically confirms this. (Fig. 4.)

DR. GOTTEN: In the 1963 arteriograms wouldn't you say that the anterior cerebral



FIG. 2. Left carotid angiogram showing displacement of middle and posterior cerebral arteries.



FIG. 3. Venous phase showing a tumor stain in the left temporoparietal area.

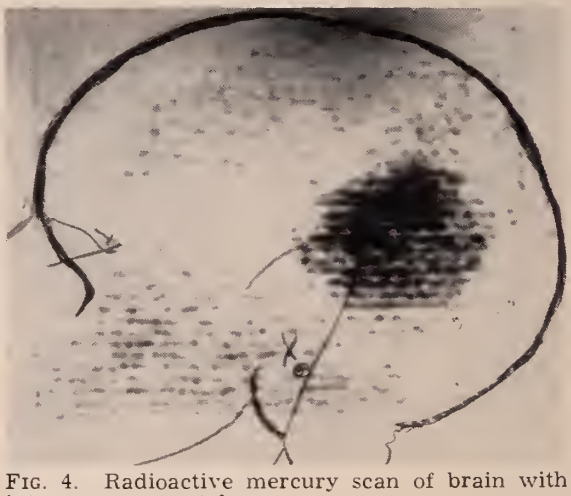


FIG. 4. Radioactive mercury scan of brain with intense tumor uptake.

was not displaced more because the tumor was well back in the temporal lobe?

DR. GARDNER: Yes, and perhaps it's more of the infiltrating type of tumor.

DR. WM. F. McCORMICK (Pathology): The findings are precisely those which were predicted, both by the neurologist and by the radiologist. The neoplasm lies within the parenchyma of the left hemisphere as was demonstrated by arteriography, electroencephalography, isotopic scan, and as was predicted on the basis of the clinical signs and symptoms. The tumor is quite well-circumscribed grossly, which is an interesting and somewhat paradoxical finding in many malignant gliomas of the central nervous system. Interesting enough, the

more malignant the tumor the more circumscribed it usually appears to be grossly. Glioblastomas are often much better circumscribed grossly than are low grade astrocytomas, but this is often not true microscopically. The tumor has a beefy-red to tan appearance with multiple areas of necrosis within it. (Fig. 5.) No massive

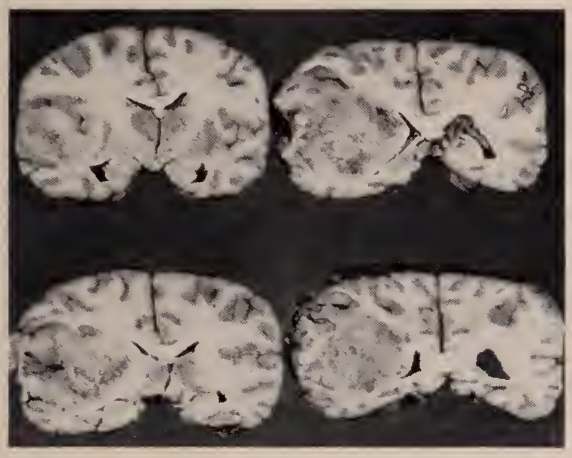


Fig. 5. Glioblastoma in left cerebrum.

hemorrhage is present within the tumor itself. As Dr. Gotten has pointed out, massive hemorrhages are fairly common in these tumors, and I have seen several outstanding examples of such massive hemorrhages. The tumor has distorted the ventricular system, as you can see. Grossly, it has not crossed the mid-line, as glioblastomas quite frequently do.

The neoplasm lies in the substance of the left posterior frontal, temporal, insular, and anterior parietal lobes and has not crossed the midline. The neoplasm is associated with massive uncal and hippocampal hernias, and massive hemorrhagic infarction of the brain stem. (Fig. 6.) Microscopically, this is a typical malignant astrocytoma or glioblastoma. In this particular case the great bulk of the neoplasm is a relatively benign astrocytoma, whereas in certain areas it became highly malignant and quite necrotic. If you use Kernohan's classification of astroglial neoplasms—astrocytoma grade I through IV—you must grade the tumor according to the most malignant area. That would make this an astrocytoma grade IV, or glioblastoma multiforme. Microscopically, this neoplasm varies from areas composed of piloid astrocytes (Fig. 7) to area where the tumor be-



Fig. 6. Hemorrhagic infarction of brain stem due to hippocampal hernia.

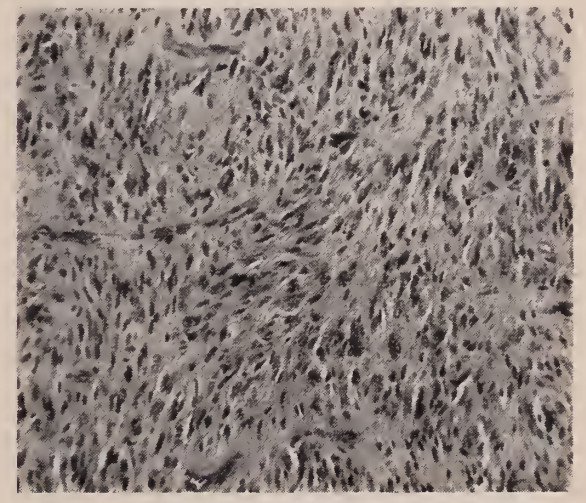


Fig. 7. Microscopic appearance of the majority of the neoplasm, consistent with a fibrous astrocytoma.

comes much more cellular and contains very numerous, abnormal vessels (Fig. 8). It is this great vascularity which is responsible for both the arteriographic and the brain scan findings. This photomicrograph illustrates these abnormal vascular formations—often called "glomeruloids" because of their resemblance to renal glomeruli—together with the several features which establish the histologic diagnosis of glioblastoma. These features are: (1) abnormal vascularity, (2) cellular pleomorphism,

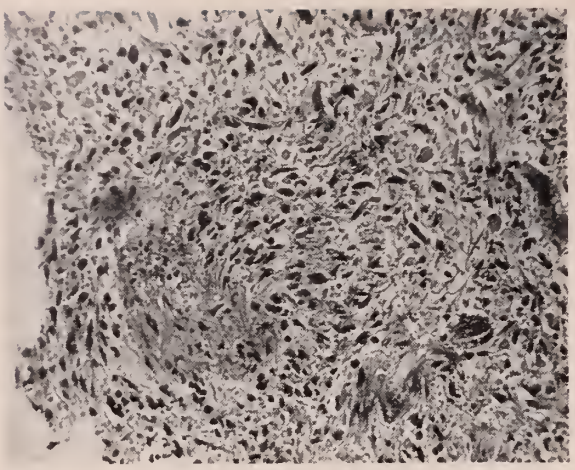


FIG. 8. Anaplastic, highly vascular area of neoplasm consistent with the diagnosis of glioblastoma.

often with neoplastic giant cells and abnormal mitoses, and (3) areas of necrosis. Necrosis in an astroglial neoplasm is regarded by many authorities as being an important diagnostic finding, and indicative of malignancy. From the pathologist's point of view, this is a very straight forward and satisfying case. Actually, I think it is from the clinical point of view too.

DR. C. C. ERICKSON: Was there any evidence of syphilis?

DR. McCORMICK: There was no evidence of syphilis either in the central nervous system or in the cardiovascular system. The heart weighed 325 grams, which is a moderate sized heart, but I do not consider it to be significantly enlarged. The measurements of the left ventricle do suggest a slight left ventricular hypertrophy, consistent with the hypertension clinically determined. The aortic valve and thoracic aorta were not remarkable.

DR. UTTERBACK: Do you think the symptoms in 1958 were due to tumor?

DR. McCORMICK: Yes. I think the beginning symptoms were referrable to the neoplasm. It is quite possible that such tumors go through an evolution from Grade I, to Grade II, and Grade III and IV, but this is not really proven. I have seen several examples of histologically proven "benign" astrocytomas terminate 5 to 10 years later as a highly malignant glioblastoma. The bulk of the neoplasm in this patient was quite benign, Grade II, but a highly malignant component is now much in evidence. This may account for the clinical progress of the patient.

Final Pathologic Diagnosis:

Glioblastoma multiforme (astrocytoma, Grade IV) of left cerebrum.

Uncal and hippocampal hernias with venous (hemorrhagic) infarction of brain stem.

TOBACCO-ALCOHOL AMBLYOPIA. M. Victor. Arch. Ophthal. 70:313 (Sept.), 1963.

Evidence is presented that the characteristic amblyopia of chronic alcoholism is in reality a deficiency disease. Clinically and pathologically, the amblyopia associated with the abuse of tobacco cannot be distinguished from that of alcoholism. The presence of a centrocecal scotoma, said to be unique for the former, may also be found in the latter. The claims that tobacco-alcohol amblyopia is toxic in origin are critically evaluated, and it is concluded that the primary cause is probably nutritional.

President's Page



DR. CANNON

The first Tennessee Congress for Mental Illness and Health to be conducted on November 13-14, in Nashville at the Hermitage Hotel, is of importance to all physicians. The Congress was authorized more than a year ago by TMA upon the recommendation of the Committee on Mental Health. The Tennessee Mental Health Association has also been asked to join in the presentation of the Congress. In view of the community-wide activity and their interest in mental health, the Woman's Auxiliary of TMA has been invited to participate in the program.

Some two years ago, the report of the commission to study the problem of mental illness in this country was published with the title, "Action for Mental Health." The results found in the study were inaugurated by the American Medical Association in cooperation with the American Psychiatric Association and thirty-six interested organizations. The survey revealed the need for action in the area of mental health and for a coordinated effort to do something about this great health need.

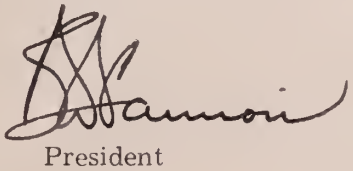
The Board of Trustees of the American Medical Association, in 1961, voted that the final report of the Joint Committee on Mental Illness and Health be recognized as an historical contribution to the promotion of mental health and prevention and care of mental illness, and that it be considered as the basis for a program which the AMA could endorse and support following the studies growing out of the National Conference on Mental Health in 1962.

The AMA developed a Statement of Principles on Mental Health, some of which deserve quotation. The statement is that, "Mental Illness is America's most pressing and complex problem. The AMA recognizes the important stake every physician, regardless of type of practice, has in improving our mental health knowledge and resources." Every physician is encouraged to become a leader in community planning for mental health.

This Statement of Principles by AMA has been endorsed by the Tennessee Medical Association's House of Delegates and in the spirit of the above attitude toward the problem of mental health, the forthcoming Congress has been planned. The program has been organized to give information to physicians about the broad area of mental illness. It will present in its content the education of the physician, coordination and cooperation with other disciplines in the management and treatment of the illness. Opportunity will be given for study of some of the outstanding mental health disorders such as mental retardation and emotional disorders of children. Discussion groups on religion and mental health, community facilities for mental health, vocational rehabilitation and long-range planning will be held.

It is my hope that physicians of Tennessee attend and support this Congress. The Congress represents our Association's initial effort to implement the AMA plan of attack on the pressing problem of mental health. An invitation and the program will be mailed to all TMA members.

The Planning Committee who have diligently worked in behalf of the Congress deserve special commendation. The devotion to this project by Dr. Frank Luton, Chairman, and Dr. Joe Johnson, Co-Chairman, should be appreciated.



President

THE JOURNAL

OF THE
TENNESSEE MEDICAL ASSOCIATION

Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor, B-4211 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK AND POST GRADUATE EDUCATION

R. H. KAMPMEIER, M.D., Chairman
W. POWELL HUTCHERSON, M.D., Chattanooga
ROBERT P. MCBURNEY, M.D., Memphis
EUGENE J. SPIOTTA, M.D., Memphis
(Specialty Society Representatives to be named)

OCTOBER, 1963

EDITORIAL

MENTAL HEALTH—A RESPONSIBILITY OF THE MEDICAL PROFESSION

Let us face it, mental disease and mental health do not strike a sympathetic chord in many doctors! In an indefinite sort of way they know they meet aspects of these problems every day in the anxieties, and in the reactions of their patients to physical disease as well as to the trials of just living and meeting the environment. They know too that they practice psychotherapy by the "pat on the back," the "laying on of hands," by the placebo and reassurance, and that indefinable but often not inconsiderable proportion of psychiatric treatment inherent in the operation or medical management of organic disease. Yet, set before practitioners the need for organized thinking and a scientific approach to mental disorders, one will all too often sense a resistance, and the smirk that goes with voodooism, witchcraft and magic.

The reasons for these attitudes are several. The older generation of us learned mainly of the organic brain syndromes and the accompanying mental aberrations. We also lived through the disputatious years of Freud, Jung, Adler, Rank, Fromm and others. The formulation of etiologic concepts, psychoanalysis and psychotherapy, particularly with a nomenclature and language foreign to the student trained in organic disease, made communication within the medical profession difficult. The psychiatrist all too often kept aloof from other practitioners of medicine, and psychotic persons were out in the country somewhere in an institution and "out of sight—out of mind." All in all mental disease did not make the impact nor make for integration in the scientifically trained mind, as did the bacterium under the microscope, histopathology, the findings at the operating or autopsy table, on the x-ray film, or the laboratory measurements in micrograms or millequivalents.

It made sense to the doctor to take part in the prevention and cure of diseases he understood—the application of principles of sanitation, immunization, control of brucellosis and tuberculosis in animals, principles of surgery, antibiotics and chemotherapeutic agents, even up to the Sabin vaccine of today. But the practitioner in whatever field has shied away from facing the more abstract facets of his practice—the psychosomatic, psychoanalytic, and psychotherapeutic, except as he has felt and possibly recognized them in the empathy that goes along with the physician-patient relationship—the basic ingredient in *good* medicine.

The younger physician is graduating from medical school more knowledgeable in psychodynamics and psychiatry. The liaison Committee of the American Psychiatric Association and the American Academy of General Practice is playing a great role in the postgraduate education of the family doctor,—for who else is in a better position to know the interaction of patient and environment. The phenothiazines and other drugs are making it feasible to hospitalize the psychotic patient in the general hospital, with the desirable mixing of psychiatrists with others of medicine in the doctors' coffee or cloak rooms.

As the doctors' preoccupation with the

"killers" (infectious disease) lessens he must face some of the results—the maintenance of life in the mentally retarded child and the juvenile delinquent, and the extension of life to the retired, deteriorating "senile delinquent" at loose ends in a world which has no slot for him.

No wonder the A.M.A. considers that "*mental illness is America's most pressing and complex health problem. . . .* (and that) *. . . Any programs designed to combat mental illness and promote mental health must, by the nature of the problems to be solved, be both ambitious and comprehensive.*"[1]

In 1955, an Act of Congress directed a Joint Commission on Mental Illness and Health to evaluate the needs and resources of the mentally ill in the United States and to make recommendations for a national mental health program. The A.M.A. and the American Psychiatric Association (A.P.A.) along with other organizations formed the Joint Commission on Mental Illness and Health. The Chairman of the A.M.A. Council on Mental Health was Chairman of the Board of Trustees of the Commission. The Commission's Report appeared in 1961.[2] The A.M.A. Council on Mental Health then began to plan a program for general and specific areas in which the A.M.A. and its constituent societies could attack problems in mental health and illness.[3] One year ago the A.M.A. implemented this program by calling the First National Congress on Mental Illness and Health to organize regional and state activities within the framework of the A.M.A. mental health program. The Congress was attended by 2000 persons from the medical profession, allied health groups, lawyers, educators, state and government agencies and citizens' groups.

An outgrowth of that meeting is the First Tennessee Congress on Mental Illness and Health, sponsored by the Mental Health Committee of T.M.A., and to be held in Nashville next month. Its aims have been outlined on the President's Page in this issue.

It, as with the First National Congress sponsored by the A.M.A., will include nonmedical persons. Physicians, basically individualists, not infrequently find it difficult to meet with those of other professions upon an equal footing. Historically, they have needed only to meet with those of the nursing profession. However, as has been said repeatedly on these pages, we are caught in a time of rapid change. The complexities of modern civilization no longer permit any given group to isolate itself from the main currents of change any more than a country can remain isolated in the jet-age. With medicine moving more and more from a *curative* phase into a *preventive* phase, the doctor will and must become a member of a team, rounded out by paramedical and other personnel. (I am possibly reactionary in continuing to insist on these pages that in the organization and responsibilities of the health team, the medical person must be the captain and "call the plays." He has the broad knowledge—he knows the histopathology of paresis, the deranged physiochemical mechanisms in the brain, as well as the psychopathology in its broad sense.)

The physician of the future will find the adjustment to a team less onerous. During the past decade the undergraduate medical student has seen the role played by the medical physicist with his isotopes, the electronics expert attending the "pump" during cardiac surgery, the counsellor in rehabilitation, the V.D. investigator, and the sociologist, psychologist and social worker in mental disease, aside from the many technicians in the other fields. The doctor no longer plays a "lone hand." The A.M.A. Council on Medical Education and Hospitals[4] recently, in commenting on *Training for Medical Care in a Changing World*, indicated that one function of a medical school "is that of educating the future physician for his role with the related health sciences and professions. Especially, he must acquire the understanding and skill to be the responsible director and coordinator of the team which must contribute to many phases of medical care."

It will be an interesting meeting next month with the Tennessee Medical Association leading the way into an attack upon the most complex health problem which has ever been faced by the medical profession (and this is said advisedly), joined by nonmedical persons who, however, will

have an especial and essential role in the preventive aspects of mental health and illness.

R. H. K.

References

1. A.M.A. Statement of Principles on Mental Health.
2. Action for Mental Health—Final Report of the Joint Commission on Mental Illness and Health—1961. Basic Books, Inc., New York.
3. Program of the A.M.A. Council on Mental Health. J.A.M.A. 181:1080, 1962.
4. Money and Medical Schools. Report of the A.M.A. Council on Medical Education and Hospitals. 1963.

DEATHS

Dr. Stanley H. Barrett, 75, Chattanooga, died August 22nd in a Georgia Nursing Home.

Dr. Duncan Eve, 83, Nashville, died August 28th after a short illness.

Dr. E. C. Ham, 88, Memphis, died at his home on September 9th after several months' illness.

Dr. G. Madison Roberts, 78, Chattanooga, died September 2nd in a local hospital.

Dr. Ammie T. Sikes, 71, Nashville, died September 9th at his home.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Chattanooga and Hamilton County Medical Society

The Society's monthly meeting was held in the auditorium of the Interstate Building on September 3rd, where the following scientific program was presented. "Early Diagnosis of Abdominal Aneurysms" by Dr. C. Windom Kimsey. "Intracranial Aneurysms" by Dr. Walter E. Boehm. "The Complete Cancer Examination," a film by the American Cancer Society.

Memphis and Shelby County Medical Society

"A Legal Pot Pourri" was the subject discussed by attorney Alexander W. Dann, Jr. before the Memphis and Shelby County Medical Society at its regular monthly meeting on September 3rd, at the Institute of Pathology Building in the Medical Center. The session of the House of Delegates was held at 8:00 P.M.

Nashville Academy of Medicine and Davidson County Medical Society

The quarterly meeting of the Academy, combined with hospital staff meetings, was conducted on September 10th at the Hermitage Hotel. Following the staff meetings and a business session, the scientific program included: "The Treatment of Massive Thrombophlebitis of the Lower Extremities" by Dr. J. Alex Haller, Associate Professor of Surgery, Johns Hopkins School of Medicine; "Conservative Management of Endometriosis, Utilizing Synthetic Progestine" by Dr. Robert W. Kistner, Assistant Professor of Obstetrics and Gynecology, Harvard Medical School; and "Genetic Counseling" by Dr. Victor C. Vaughan, III, Professor and Chairman, Department of Pediatrics, Medical College of Georgia.

Knoxville Academy of Medicine

The Society's regular monthly meeting was conducted on September 10th in the Academy of Medicine Building. Dr. Richard Obenour was moderator for a panel discussion on "Cardiac Arrythmia." Panelists included: Drs. R. B. Wood, W. W. Powers, Horace Yarberry and Frank London.

NATIONAL NEWS

The Month in Washington

(From the Washington Office, AMA)

The Food and Drug Administration has proposed banning more than 50 so-called "cold cure" prescription drugs containing antibiotics and other antimicrobial agents. The action was recommended by a team of leading medical scientists who found that the antibiotics have no effect whatsoever on the common cold.

This proposal followed an earlier FDA crackdown on a wide variety of over-the-counter lozenges, nose drops and sprays, mouth washes and deodorants, skin lotions and ointments containing antibiotics. It was estimated that about 200 such compounds were affected.

The most recent FDA proposal would prevent the certification of prescriptions which include antibiotics in conjunction with anal-

gesics, antihistamines, decongestants, and caffeine. It would affect only prescription drugs taken by mouth.

The order also would initiate regulatory action, if necessary, to remove from the market analgesics, decongestants, caffeine and anti-histamines when mixed with any other anti-microbial agents, primarily the sulfa family.

At the request of the FDA, the National Academy of Sciences had named a panel to evaluate the "cold cures." The chairman was Dr. Harry Dowling, chairman of the American Medical Association Council on Drugs and on the faculty of the University of Illinois School of Medicine.

The panel unanimously concluded:

1. There is no acceptable evidence that any antimicrobial agent is of any value in the treatment of the common cold or any other upper respiratory viral infection.

2. Antimicrobial agents are of no value in preventing bacterial complications in patients with common colds who are otherwise healthy, and therefore should not be used. They may have some value in patients with underlying chronic pulmonary disease. When prophylactic therapy of respiratory infection is justified, the antimicrobial agent that may be used must be one that is relatively free of inherent toxicity. This would preclude the use of chloramphenicol, triacetyloleandomycin, and/or sulfonamide products.

3. The antibiotic in a drug which includes analgesics, antihistaminics, and possibly decongestants would have no effect on the cold itself and there is insufficient clinical evidence to show that it would be of value in the prevention of complicating infections of a cold. The symptomatic relief that may be provided by the other ingredients of such a preparation is no justification for any such product to contain an antimicrobial agent.

★

The Defense Department has modified the Berry Plan to permit deferment of a larger number of residents from the military draft until after they have completed their specialty training.

Dr. Shirley C. Fisk, deputy assistant defense secretary for health and medical affairs, outlined the modification in a letter to deans of medical schools. He said, in part:

"The three Armed Forces are given the option of deciding in which specialties they will offer additional deferments. In any given specialty, however, the number of additional deferments will not exceed the number deferred in the Berry Plan. We believe that this policy will have the two-fold benefit of deferring a larger number of residents and of creating an immediately available group of specialists for military service should the need arise.

★

The Pharmaceutical Manufacturers Association (PMA) and 37 prescription drug producers challenged in a federal district court the legal validity of a drug advertising and labeling regulation recently promulgated by the Food and Drug Administration (FDA).

The action, filed in the U. S. District Court in Wilmington, Del., alleged that the regulation is "unauthorized by and contrary to law."

Secretary of Health, Education and Welfare Anthony J. Celebrezze and Food and Drug Commissioner George P. Larrick were named as defendants.

The controversial regulation was issued last June 20 as a result of the 1962 amendments to the Food, Drug, and Cosmetic Act. The amended law requires only that "established names" of prescription drugs be printed in labeling and advertising "prominently and in type at least half as large as that used for any proprietary name." While on the other hand the regulation would require the established name to appear "each time" the protected trademark or brand name appears in an advertisement or on a label.

Established names of drugs usually are originated by manufacturers in cooperation with the U. S. Pharmacopeia and the American Medical Association. An established name may be used by any producer to identify the active or therapeutic ingredient in a drug product. In contrast, a protected brand name may be used only by a single producer to identify himself and his product.

The plaintiffs pointed out that drugs with the same established name may differ

in therapeutic effect because of varying inactive ingredients and manufacturing methods.

The plaintiffs also said that, in addition to going beyond statutory authority, the regulation requiring repetition of the established name with each use of a protected brand name on a container label, or in any advertising to physicians would be confusing and would make reading more difficult, to the detriment of doctors and ultimately their patients.

MEDICAL NEWS IN TENNESSEE

Funds Tentatively Approved for Hospital Construction

The State Hospital Advisory Committee has approved tentative allocations totaling $5,194,399 in federal Hill-Burton funds for hospital construction in Tennessee. The allocations were made on a tentative basis pending final appropriation of funds by Congress. The funds will be used for construction of hospitals, hospital additions, nursing homes, diagnostic and rehabilitation centers and homes for retarded children in counties throughout the state.

October 6—Sabin Sunday for 28 Counties

October 6th was the first of three Sundays designated for the Sabin Vaccination Programs in twenty-eight counties. Counties participating on this date were: Anderson, Bedford, Benton, Bradley, Cannon, Coffee, Davidson, Dickson, Giles, Humphreys, Jackson, Knox, Lawrence, Lincoln, Maury, Monroe, Montgomery, Moore, Morgan, Overton, Roane, Robertson, Rutherford, Sevier, Sumner, Trousdale, Williamson and Wilson.

Medical Self-Help Training Programs

Medical Self-Help Training Courses, designed to provide basic information a person needs to know to preserve life and health in case of a national emergency, when professional medical help would not be available, are being conducted in two counties. Loudon County began its program on September 3rd in Lenoir City and Sevier County held its first session on September 26th. The classes are opened to the public with no cost involved to those attending. Local physicians are participating as instructors in the training programs.

UMWA Welfare Administrators Shifted to New Areas

The first major shift in fifteen years in administrators of the UMWA Welfare and Retirement Fund went into effect October 1st. Dr. John D. Winebrenner, who has done excellent work in this field in Tennessee for a number of years, was transferred to Louisville; and Dr. Allen N. Koplin, formerly in charge of the Birmingham office moved to Knoxville. Other shifts in administrators moved Dr. William H. Riheldaffer of Charleston, West Virginia, to Birmingham; and Dr. Asa Barnes of Louisville to Charleston and Beckley, West Virginia.

Future Physicians Club

The Future Physicians Club for 10th, 11th and 12th grade students in city and county high schools of Memphis and Shelby County, met October 2nd in the University of Tennessee Center. The program included a talk by Dr. M. K. Callison, dean of the UT College of Medicine and the showing of an American Medical Association film, entitled "I Am A Doctor." The Youth and Education Committee of TMA has endorsed the promotion of such clubs over the state.

Medical Seminar

Medical examiners from twenty-one counties west of the Tennessee River attended a seminar on September 7th at the University of Tennessee Medical Center. The seminar was the first of several scheduled to discuss common problems of medical examiners.

Madison Hospital Dedicates New $200,000 Addition

Dedication services for the new Psychiatric Building addition at Madison Hospital were held August 18th. The new structure includes patient rooms for 46 patients and such additional rooms as crafts shop, recre-

(Continued on page 422)

FIRST TENNESSEE CONGRESS ON MENTAL ILLNESS AND HEALTH

Nov. 13-14, 1963—Hermitage Hotel—Nashville, Tenn.

"The goals for the Congress can be expressed simply, as follows: Mental Illness is the greatest health problem in the Nation. To solve it will require all the resources of professional and lay personnel trained in the field. The Congress hopes to bring persons together to find out what each knows about the problem, and where his knowledge can best be put to work. We hope we may add something to the experience of the registrant in this meeting that will increase his effectiveness." Frank H. Luton, M.D., Chairman, Program Committee.

PRELIMINARY PROGRAM

Wednesday, November 13, 1963

10:00 A.M.—Registration: Hermitage Hotel Lobby 1:30 P.M.—General Session: Hermitage Hotel
Welcome—The Honorable Beverly Briley, Mayor of Nashville
Response—Judge William O. Beach, President, Tennessee Mental Health Association

2:00 P.M.—Address—"Mental Illness and the Physician," Lindsay Beaton, M.D., AMA Council on Mental Health, Tucson, Arizona

3:00 P.M.—Address—"Cooperation in Mental Health," Mr. Philip E. Ryan, Executive Director, National Association for Mental Health

3:45 P.M.—Address—"Organization for Mental Health—Action at the State Level," Robert Garber, M.D., Speaker, Assembly of American Psychiatric Association

6:00 P.M.—Social Hour—Hotel Hermitage

7:00 P.M.—Dinner—Toastmaster: Bland W. Cannon, M.D., President, Tennessee Medical Association
Address—Frank G. Clement, Governor, State of Tennessee

Thursday, November 14, 1963

8:00 A.M.—Breakfast Roundtables and Topical Discussion Groups

Group I: "Communicating Mental Health Knowledge to All Physicians"—Leader: Jack Sparer, M.D.

Group II: "Mental Health Services"—Leader: Nat Winston, M.D.

Group III: "Religion and Mental Health"—Leader: Wayne Bell, D.D.

Group IV: "Mental Deficiency"—Leader: Joseph C. Denniston, M.D.

Group V: "Vocational Rehabilitation"—Leaders: Frazier Harris and John Forrest

Group VI: "Problem Areas of the Child"—Leader: Robert Stepback, Ph.D.

Group VII: "Planning for Mental Health Facilities"—Leader: Leonard Morgan, Ph.D.

Group VIII: "Role of the Medical Auxiliary in Mental Health Work"—Leader: (to be announced)

11:00 A.M.—Address—"Action for Mental Health—The Joint Commission Report," Kenneth Appel, M.D., President, Joint Commission on Mental Illness and Health

1:30 P.M.—Summaries of Breakfast Roundtable Groups

2:45 P.M.—Address—"What's Happening in Tennessee," Joseph J. Baker, M.D., Commissioner, Tennessee State Department of Mental Health

3:15 P.M.—Address—"Information and Education in Mental Health," William F. Sheeley, M.D., Chief, APA-GP Program

3:45 P.M.—Address—"Summation of Congress," Lindsay Beaton, M.D.

ation room, separate day rooms for men and women patients, visiting areas, treatment areas, kitchen and service areas.

University of Tennessee College of Medicine

Research to determine what causes some types of bacteria found on the skin of most people to be highly infectious will continue under a $15,000 grant from the National Science Foundation. The project, under the direction of Dr. D. Frank Holtman, head of the Department of Bacteriology, was given for a period of two years.

★

A loan fund in the amount of $25,000 has been set up for medical students. The Dr. Boone Scott Memorial Fund will be available to UT students in their junior and senior year.

★

Southwestern and the University of Tennessee Medical Units at Memphis have been awarded grants totaling $136,380 for a study of changes occurring in people with slipped disks. Southwestern, which received $98,000, will study chemical changes in the body, while the University, which received $38,380, will study biological changes.

St. Jude Research Hospital

The National Cancer Institute has awarded a research grant for work in drug treatment of childhood cancer to two pediatricians at St. Jude Research Hospital, Dr. David H. James, Jr. and Dr. Donald Pinkel. The Institute has also awarded a two-year grant for study of cancer's resistance to drugs to a St. Jude Research Hospital bacteriologist, Dr. Irving J. Slotnick.

Meharry Medical College

A researcher has started an investigation under a grant of $16,000 from the National Institutes of Health to try to develop a more efficient test for encephalitis.

Tennessee Pediatric Society

Knoxville area pediatricians were host to the Tennessee Pediatric Society at its annual meeting, September 15-17, in Gatlinburg. Guest speakers at the meeting included: Dr. Horace L. Hodes, chief of pediatrics, Mt. Sinai Hospital, New York; Dr. Robert Lawson, chief of staff, Children's Memorial Hospital, Chicago; and Dr. Theodore C. Panos, professor of pediatrics, University of Arkansas Medical Center, Little Rock, Arkansas.

Dr. Pope Holliday of Chattanooga has assumed the office of President of the Tennessee Pediatric Society and Dr. Wm. P. Hardy of Oak Ridge was elected Secretary.

PERSONAL NEWS

Dr. Harold B. Boyd, Memphis, attended a meeting of the International Society for Orthopedics and Traumatology, September 2-7, in Vienna where he presented a paper co-authored by **Dr. R. A. Calandruccio,** Memphis.

Dr. William G. Fuqua, Columbia, President of the Maury County Medical Society, spoke against King-Anderson type legislation before a recent meeting of the Rotary Club.

Heading the Medical Division of the Shelby United Neighbors fund drive in 1963 is **Dr. William T. Satterfield, Jr.,** Memphis.

Two Cleveland physicians encouraged cooperation in Bradley County's Sabin Vaccination Program. **Dr. James Thurman** addressed the Cleveland Business and Professional Women's Club, and **Dr. Wm. A. Garrott** spoke before the Lions Club.

Dr. E. E. Perry has opened his office for the practice of medicine in the Professional Building in Blountville.

Dr. Robert E. Baldwin, Chattanooga, was a guest speaker at the meeting of the Civitan Club recently. His subject was "Fedicare," the medical profession's name for Medicare.

Dr. Gilbert Levy, President of the Memphis and Shelby County Medical Society, discussed the new Community Blood Plan of Memphis at a recent meeting of representatives of the press and Memphis community-wide organizations.

Dr. W. T. Anderson, formerly of Gainesboro, has opened his office for the practice of medicine at the Millersville Clinic.

Dr. Joseph W. Johnson, Jr., Chattanooga, spoke on "Medical Cost and Social Security" at a recent meeting of the Rotary Club.

Two Knoxville physicians, **Dr. Walter C. Beahm** and **Dr. Ann Avery,** have opened the Kingston Pike Medical Clinic. Dr. Beahm does general practice and Dr. Avery is an obstetrician and gynecologist.

Dr. Jack Adams, Chattanooga, has accepted the chairmanship of the Greater Chattanooga Chamber of Commerce health and sanitation committee for 1963.

Drs. Muriel von Werssowetz and **Marion Young,** Chattanooga, were guest speakers at the seminar for nurses on cerebral palsy on September 13th.

Dr. Glenn E. Horton, Memphis, has been appointed Vice-Chairman, Section on Bronchopulmonary Physiologic Therapy of the American College of Allergy.

Six Cleveland physicians have opened their offices in the new Bradley Medical Center. They are: **Drs. Ivan Humphries, Hays Mitchell, John Appling, John Rogness, Gilbert Varnell**, and **James R. Thurman.**

Dr. John C. Gaw has opened his office for the practice of general surgery in McMinnville.

Dr. Claude Oglesby, instructor of ophthalmology at the University of Tennessee, recently addressed the Memphis Lay Diabetic Society. He discussed the Mid-South Sight Service, the relationship of the eye to diabetes and the problem of glaucoma.

Dr. Melvin K. Bottorff has joined **Dr. R. W. Brandon, Jr.** in the practice of medicine and surgery at the Weakley County Hospital.

Dr. C. W. Sensenbach, internist, has opened an office in the Doctors Building at Oak Ridge.

Dr. Clarence C. Lushbaugh, pathologist formerly with the Los Alamos (N.M.) Scientific Laboratory of the University of California, has joined the staff of the Oak Ridge Institute of Nuclear Studies medical division.

Dr. Stanley H. Tyler, Memphis, has been appointed to the medical staff of the Tennessee Psychiatric Hospital and Institute.



OPPORTUNITIES FOR SHORT TERM SERVICE WITH MEDICO-CARE

While we in Tennessee, and in America as a whole, have come to accept good medical care, available at a moment's notice and as a normal situation, it is estimated that over half of the world's population dies before the age of 35, with no opportunity for any medical care during their lifetime.

Dr. Tom Dooley and Dr. Peter Comanduras, concerned about the world's medical needs, formed MEDICO in 1958 to enable American physicians to do something about them. There are now "long-term" teams in Afghanistan, Cambodia, Haiti, Malaya, and Viet Nam. There are "short-term" emergency medical teams in Algeria, and there are short-term specialist volunteers in Jordan, Viet Nam, Colombia, and Nigeria.

As I reported in the September, 1962 Journal of the Tennessee Medical Association, I have participated in two short-term specialist programs, as an orthopedic surgeon, in Jordan and Nigeria. Since then, I have gone with an East Tennessee emergency medical team to Algeria in March, 1963. Like other physicians who have been on MEDICO-CARE projects, I have come back an enthusiast for this type of work.

MEDICO-CARE is now recruiting physician volunteers to work in short-term projects overseas, as well as long-term projects. On long-term projects, expenses and a nominal salary are paid. On most of the short-term projects, for one to three months, the physician pays his own way, but the expenses are tax-deductible.

While physicians in almost any category can be placed, MEDICO-CARE is especially interested in recruiting surgeons, gynecologists, orthopedic surgeons, internists, pediatricians, neurosurgeons, and general practitioners.

Any physician who is interested in any phase of this work is urged to contact General K. L. Hastings, 1710 M Street, N.W., Washington 26, D. C. It is an opportunity for us as physicians to have a vacation-with-a-purpose; to enlarge our outlook by working in another part of the world, to get to know physicians of a foreign country, to treat some truly grateful patients, and to serve our Country as ambassadors of good will.

Paul Spray, M.D.,
Doctors' Bldg.,
Oak Ridge, Tenn.

ANNOUNCEMENTS

Postgraduate Course in Obstetrics Vanderbilt University School of Medicine

The Department of Obstetrics and Gynecology of Vanderbilt University School of Medicine will conduct a Postgraduate Day on Thursday, November 7. Common Obstetric Problems will be discussed with emphasis on diagnosis and management.

The course is acceptable for Category I credit by the American Academy of General Practice. Tuition is $15.00, which includes the luncheon. For further information address the Division of Continuing Education, Vanderbilt University School of Medicine.

Postgraduate Course on Current Concepts in Therapy of Cerebral Palsy—Vanderbilt University School of Medicine

The Department of Orthopedic Surgery is offering a one day course on the Current Concepts in Therapy of Cerebral Palsy on Wednesday, October 23. Dr. Henry H. Banks, Associate in Orthopedic Surgery at the Harvard Medical School, the Peter Bent Brigham Hospital, and the Children's Hospital, Boston, Massachusetts, will be the distinguished guest. Dr. Banks is an authority in the treatment of cerebral palsy and is Chairman of the Committee on Evaluation of Treatment Methods which is sponsored by the American Academy for Cerebral Palsy and sup-

ported jointly by the United Cerebral Palsy and the National Society for Crippled Children and Adults. The day is intended as a review of current concepts in treatment of cerebral palsy and is planned for physicians and professional workers in the treatment centers of this area.

The United Cerebral Palsy of Middle Tennessee is making it possible for professional workers in cerebral palsy to participate in this course. Their registration fee may be paid by United Cerebral Palsy of Middle Tennessee if requested by the applicant.

Cardiac Day

The symposium on heart disease presented annually by the Middle Tennessee Heart Association, will be held at Vanderbilt Hospital on Friday and Saturday, November 8 and 9. This year's program, to be sponsored jointly with the Tennessee Department of Public Health and Vanderbilt University School of Medicine, will include: an ECG Workshop on Friday morning; Medical Symposium on Friday afternoon and evening; and, Cardiac Grand Rounds on Saturday morning.

Guides to the Evaluation of Permanent Impairment

Now available—the fifth in the series of "Guides to the Evaluation of Permanent Impairment" developed by the Committee on Medical Rating of Physical Impairment and authorized for publication by the AMA Board of Trustees. It is entitled: "Guides to the Evaluation of Permanent Impairment—The Central Nervous System."

This guide, like all the others in the series, has been designed primarily for use by physicians. The guides are however, of interest and use to all concerned with the medical, administrative or judicial aspects of programs for the disabled. The other published guides in the series deal with the extremities and back, the visual system, the cardiovascular system, and ear, nose, throat, and related structures.

This recent guide, which appeared in the July 6, 1963 issue of J.A.M.A. A limited number of copies of the guides may be obtained, without charge, upon written request to the Committee on Medical Rating of Physical Impairment, 535 North Dearborn Street, Chicago 10, Ill.

Rocky Mountain Medical Conference

A scientific program designed to provide information of everyday use to a broad spectrum of medical interests will be presented at the Twelfth Biennial Rocky Mountain Medical Conference, October 30 to November 2, 1963, in Las Vegas, Nevada. It is held in conjunction with the 59th Annual Meeting of the Nevada State Medical Association and will feature scientific papers and panel discussions by 16 nationally known physicians; plus an histologist, embryologist, and a vice-president of a national liability insurance company. Registration at the Conference is open to any Doctor of Medicine. A registration fee of $20 which includes a luncheon will be charged.

Calendar of Meetings, 1963-64

State

Oct. 24-25 —Tennessee Academy of General Practice, Nashville

Nov. 8-9 —Southern Society for Pediatric Research, St. Jude Hospital, Memphis

Nov. 13-14 —First Tennessee Congress for Mental Illness and Health, Hermitage Hotel, Nashville

Nov. 21 —Middle Tennessee Medical Association Fall Meeting, Camp Campbell, Kentucky

Feb. 11-14, 1964—Mid-South Medical Assembly, Peabody Hotel, Memphis

Regional

Nov. 2-6 —American Orthotics and Prosthetics Association, Jung Hotel, New Orleans

Nov. 18-21 —Southern Medical Association, Municipal Auditorium, New Orleans

Dec. 10-12 —Southern Surgical Association, Homestead, Hot Springs, Va.

Feb. 12-16, 1964—American College of Cardiology, Roosevelt Hotel, New Orleans

National

Nov. 2-6 —American Society of Anesthesiology, Palmer House, Chicago

Nov. 7-10 —Gerontological Society—Sheraton Plaza Hotel, Boston

Nov. 11-15 —American College of Preventive Medicine, Continental Hotel and Municipal Auditorium, Kansas City

Nov. 30-Dec. 1 —American College of Chest Physicians, Portland, Oregon

Nov. 30-Dec. 5 —American Academy of Dermatology, Palmer House, Chicago

Dec. 1-4 —American Medical Association Clinical Meeting, Memorial Coliseum, Portland, Oregon

Jan. 18-23, 1964—American Academy of Orthopaedic Surgeons, Palmer House, Chicago

Jan. 22-25, 1964—Neurosurgical Society of America, Wigwam Hotel, Phoenix, Arizona

Middle Tennessee Medical Association

The 138th semi-annual meeting of the Middle Tennessee Medical Association will be held on November 21, 1963 at Fort Campbell, Kentucky. An excellent scientific program has been arranged, and physicians attending will have an opportunity to view field demonstrations by the 326th Medical Company, 101st Airborne Division. Mark your calendar now for November 21st.

Physicians Recently Licensed in Tennessee

Augustus M. Middleton, Jr., Jackson
Henry G. Jackson, Jr., Roanoke, Va.
Drew P. McFarland, III, Fort Worth, Texas
Charles E. Parkin, Wichita, Kans.
Vincent G. Petrella, Buffalo, N. Y.
Michael M. Stump, Signal Mt.
Arthur L. White, Jr., Nashville
Clarence C. Lushbaugh, Oak Ridge
Claude C. Sartor, Clemson, S. C.

Postgraduate Day in Pediatrics Vanderbilt University School of Medicine

The Department of Pediatrics of Vanderbilt University School of Medicine will conduct a Postgraduate Day on Thursday, December 12, on "Recent Advances in Pediatrics." This review will treat pediatric concepts which have been clarified in the last few years and recent advances in prevention and therapy. Interesting clinical materials on the ward at the time will be presented. Ample opportunities for questions will be offered.

The course is acceptable for Category I credit by the American Academy of General Practice. Tuition is $15.00, which includes the luncheon. For further information address the Division of Continuing Education, Vanderbilt University School of Medicine.

OCCUPATIONAL HEALTH HINTS
PRE-EMPLOYMENT PHYSICAL EXAMINATIONS

I. The physician doing pre-employment physical examinations should be interested in job placement. During these examinations he should not think primarily in terms of rejectable defects.

II. In general, the occupational physician should refer patients to their private physician for treatment of nonoccupational illness.

A. A telephone call to the doctor concerned is excellent public relations.

B. An employee who wants to change doctors should be provided with a list of qualified physicians from which he can choose.

C. Patients without private physicians who select the part-time occupational health physician may be ethically treated.

III. Management makes the final decision as to who is employed.

IV. All physicians should familiarize themselves with the Tennessee waiver law which permits employment of some cardiac patients upon the signing of a waiver dismissing the employer from certain liability in the event of recurrence of cardiac disability. The signing of a waiver does not guarantee employment.

V. Routine pre-employment immunizations are inadvisable except in certain special cases.

A. They may not be necessary.

B. The physician and the company may be held liable for assault associated with injections prior to employment.

C. Disability from reactions to pre-employment immunizations are not covered under the compensation laws.

Occupational Health Committee—TMA.

PLACEMENT SERVICE

The Placement Service of the Tennessee Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee. Cypress 1-4584.

Locations Wanted

A 48 year old General Surgeon, and his wife, an Internal Medicine and Anesthesiologist, would like associate, clinical, industrial, or institutional practice in any location in Tennessee. Graduates of the Medical Evangelists College in California; residency training; Seventh Day Adventist; available anytime. LW-495

◆

A 42 year old Anesthesiologist, graduate of the Medical College of Madrid, Spain, would like assistant, associate, or group practice. Married. Extensive residency training. Prefers large city in East Tennessee. Available January 1964. LW-496

◆

A 30 year old Board eligible General Surgeon, graduate of the University of Tennessee Medical School, now in his fifth year of residency training, would like assistant, associate, or solo practice in West Tennessee city of any size. Married; Baptist; Tennessee license. LW-497

◆

A 33 year old Ob-Gyn, now completing three years of residency, would like associate practice in any city in West Tennessee. Married; Hebrew; graduate University of Iowa Medical School; Junior Fellow, American College of Ob-Gyn. Available July 1, 1963. LW-498

◆

A 32 year old physician would like to establish associate, clinical, or hospital practice in any large city in Tennessee, for the practice of Internal Medicine (also Cardiology). Residency training; single; Catholic; now in military service. Available July 1964. LW-499

◆

A 54 year old native Tennessean, Board eligible in Internal Medicine, would like to relocate in Tennessee. Graduate University of Tennessee Medical School; married; Methodist; prefers industrial, institutional, or public health practice. No preference as to size or location. Available January 1, 1964. LW-500

◆

A 38 year old Ob-Gyn, currently in his third year of residency, would like assistant, associate, or clinical practice in Middle or West Tennessee city of 50,000 plus. Married; Episcopalian; graduate University of Arkansas School of Medicine; available July 1965. LW-501

◆

A 31 year old Ob-Gyn, now in residency, graduate of Duke University School of Medicine, would like associate, clinical, or solo practice in East Tennessee city of 20,000 plus. Married; Methodist; available July 1964. LW-502

◆

A 33 year old Surgeon, now in residency, graduate of the Harvard Medical School, would like associate, clinical, or solo practice in any part of Tennessee. Married; Methodist; available July 1, 1964. LW-503

◆

A 30 year old Internal Medicine physician, graduate Yale School of Medicine, now in residency, would like assistant, associate practice in East Tennessee city of 50,000 to 200,000 population. Married; Protestant; available July 1, 1964. LW-504

Physicians Wanted

A small southern Tennessee community in need of a general practitioner to replace retired M.D. Hospital within 15 miles. Near large industrial area. Large local trade. Good location for interested physician. PW-142

◆

Community in southern part of Tennessee, with over 500 in population, in need of general practitioner. No other physician in community. Office space and some equipment available. PW-147

◆

Furnished office available in clinic, located in suburb of Middle Tennessee city of over 200,000, for Internist to assume practice of former physician. PW-172

◆

General Practitioner in Middle Tennessee town of 1200 (trade area over 8,000) would like an associate with at least two years residency in general surgery, and not over 45 years of age. Good schools; near excellent recreational facilities; housing and office space adequate; some office equipment available. PW-175

◆

General practice available in upper west Tennessee community of over 800; hospital facilities nearby; no other doctor in area; clinic owned by town and leased, completely equipped. Well established practice. Housing available. Any financial arrangements easily worked out. PW-179

◆

FOR SALE: established partnership practice and spacious air-conditioned office building, suitable for two doctors, in Middle Tennessee town of 10,000. Located near open-staff Hill-Burton hospital. PW-187

◆

FOR SALE: Practice (space and equipment) for lease or sale. Strictly surgical. Excellent opportunity for young physician. West Tennessee city of over 40,000. Physician leaving due to bad health. PW-191

◆

Middle Tennessee town of 7,500 in great need of physician. Well built clinic building available for office. Active support of county and town officials, as well as civic organizations. No other physician in town. PW-195

◆

FOR RENT: 12 room clinic in East Tennessee city. No equipment. No other physician in immediate area. Near large city. Hospital facilities readily available. PW-196

◆

General practice available for physician in suburb of large East Tennessee city. Office ready for immediate occupancy. Another location nearby, will build to suit physician. Dentist now practicing next to both locations. PW-201



The Lady Governors of the Old Men's Home at Haarlem FRANS HALS, 1580/81-1666

In Geriatrics...

METAMUCIL® Provides Bland Smoothage

brand of psyllium hydrophilic mucilloid

The tendency of the elderly to subsist on low-residue foods often is a prime cause of bowel sluggishness. Adequate fecal content is necessary to maintain normal colonic function, since intracolonic distention is nature's method of stimulating reflex peristalsis.

Metamucil, therefore, fulfills a basic function in the treatment of geriatric constipation. It both softens hard, dehydrated fecal concretions and adds smooth, nonirritant, easily compressible hydrophilic bulk.

Metamucil applies a physiologic principle to correct constipation naturally.

Average Adult Dose: One rounded teaspoonful of Metamucil powder (or one packet of Instant Mix Metamucil) in a glass of cool liquid. To Metamucil powder, a refined, purified and concentrated psyllium hydrophilic mucilloid, an equal amount of dextrose is added as a dispersing agent. Each dose of the powder furnishes a negligible amount of sodium and 14 calories. To the mucilloid in Instant Mix Metamucil citric acid, sodium bicarbonate and mild flavoring are added. Each dose of Instant Mix Metamucil furnishes 0.25 Gm. of sodium and 3 calories. Metamucil is available as Metamucil powder in containers of 4, 8 and 16 ounces and as flavored Instant Mix Metamucil in cartons of 16 and 30 single-dose packets.

G. D. SEARLE & CO.
CHICAGO, ILLINOIS, 60680
Research in the Service of Medicine



For peptic ulcer gastric hyperacidity and gastritis...

In year-long study on peptic-ulcer patients

New Creamalin®
Antacid Tablets

*"...faster in onset of action...and for a longer period"**

"Clinical studies in 85 patients with duodenal ulcer ...confirmed the superiority of the new preparation [new Creamalin] over standard aluminum hydroxide preparations, in that prompt relief was achieved and maintained throughout the period of observation."*

Patients were followed for about one year.

New Creamalin promotes ulcer healing, permits less frequent feedings because it is so long-acting. Heartburn and epigastric distress were "...easily and adequately controlled...."* New Creamalin has the therapeutic advantage of a liquid antacid with the convenience of a palatable tablet. *It does not cause constipation.*

Each new Creamalin tablet contains 320 mg. of specially processed highly reactive dried aluminum gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles offer a vastly increased surface area.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours. *How Supplied:* Bottles of 50, 100, 200 and 1000.

Now also available—New Creamalin Improved Formula Liquid. Pleasant mint flavor—creamy pink color. Stabilized reactive aluminum and magnesium hydroxide gel (1 teaspoon equals 1 tablet). Bottles of 8 and 16 fl. oz.

Creamalin, trademark reg. U.S. Pat. Off

*Schwartz, I. R.:
Current Therap. Res. 3:29, Feb., 1961.

Winthrop LABORATORIES New York 18 N Y

blood, milk and Maalox®

(magnesium-aluminum hydroxide gel)

Practically standard treatment, now, for bleeding ulcer. Why is Maalox included? Antacid therapy *must* continue long after the wound has healed, and patients started on Maalox tend to stay on Maalox. It tastes good; it's effective and will not cause constipation – three important reasons for Maalox over the long haul. Some physicians, we are told, order Maalox routinely for hospital patients on drugs which could irritate. They feel it reduces the likelihood of gastric discomfort. Supplied: Suspension; Tablets No. 1; Tablets No. 2. (Each Maalox No. 1 Tablet is equivalent to 1 teaspoonful and each Maalox No. 2 Tablet is equivalent to 2 teaspoonfuls of Suspension.)



RORER

WILLIAM H. RORER, INC., FORT WASHINGTON, PA.



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE MARK ®



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can 75c

Pt. bottle with dispensing can $2.50

Qt. bottle with dispensing can $4.00

Plus post.

White Surgical Supply Co.

SURGICAL SUPPLIES & ACCESSORIES

515 West Church Ave. Knoxville 7, Tennessee

Telephone 3-1186

ANNUAL CLINICAL CONFERENCE

Chicago Medical Society

March 2, 3, 4 and 5, 1964

Palmer House, Chicago

Lectures

Medical Color Telecasts

Teaching Demonstrations

Film Lectures

Instructional Courses

The CHICAGO MEDICAL SOCIETY ANNUAL CLINICAL CONFERENCE should be a MUST on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.





Smooths out emotional peaks and valleys

'Meprospan'-400 brand of meprobamate contains 400 mg. in sustained-release form. One capsule smooths out the anxious patient's emotional peaks and valleys for 10 to 12 hours – and provides these other advantages:

1. **Especially suitable for maintenance therapy.** Patients whose anxiety has diminished to a mild or moderate level still require a certain amount of tranquilization throughout the day. Sustained-release action is ideally suited to this type of patient.
2. **Simpler dosage schedule.** Since one capsule of 'Meprospan'-400 (meprobamate, sustained release) acts 10 to 12 hours, the patient enjoys a much simpler dosage schedule than with tablets – and is less likely to forget to take the medicine.

Side Effects: Rarely, skin reactions. May increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Massive overdosage may produce coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence in patients with history of drug or alcohol addiction.

Available: *'Meprospan'-400* (meprobamate, sustained release) contains meprobamate 400 mg. *'Meprospan'-200* (meprobamate, sustained release) contains meprobamate 200 mg. Both potencies in bottles of 30. **Usual dosage:** One 400 mg. capsule or two 200 mg. capsules at breakfast; repeat with evening meal.

Meprospan'-400
meprobamate 400 mg.
sustained release

WALLACE LABORATORIES / *Cranbury, N.J.*

CME-9188

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply

& Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601

cut Rx writing by 2/3 in colds, flu or grippe

NAME _____

ADDRESS _____

℞

No need to write three separate prescriptions for antitussive, decongestant and analgesic relief of common cold, flu or grippe symptoms when it is therapeutically correct... economically sound... to specify

ANTITUSSIVE/DECONGESTANT/ANALGESIC
'EMPRAZIL-C'® TABLETS

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Phenacetin	150 mg.
Aspirin	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming

'Emprazil-C' Tablets are available on prescription only.

Dosage: Adults and children over 12 years—1 or 2 tablets—3 times daily as required. Children 6 to 12 years—1 tablet—3 times daily as required. **Caution:** While pseudoephedrine is virtually without pressor effect in normotensive patients, it should be used with caution in hypertension. Also, while chlorcyclizine has a low incidence of antihistaminic drowsiness, the usual precautions should be observed. **Supplied:** Bottles of 100 tablets.

Also available without codeine as 'EMPRAZIL'® TABLETS

Complete literature available on request from Professional Services Dept. PML.

BURROUGHS WELLCOME & CO (U.S.A.) INC.

Tuckahoe, N. Y.

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

WANTED

GENERAL PRACTICE

FAMILY PHYSICIAN — Medical Group, West Virginia College, City of 30,000 near University Medical Center, 90 miles south of Pittsburgh.

Starting salary $15,000-16,000; annual increments; excellent fringe benefits.

For information, call collect
Administrator, Area Code 304-366-0700

ACCEPTED AMERICAN MEDICAL ASSN

HOMOGENIZED
VITAMIN D MILK
PRODUCES SOFT CURD
(400 U.S.P. Units Vitamin D Per Quart)

"A" Grade **Sealtest MILK** Phone AL 5-6451

Fortified Fat Free Milk
(2000 Units Vitamin A—400 Units Vitamin D)
NASHVILLE PURE MILK CO.

BRAWNER HOSPITAL, INC.

(Established 1910)
2932 South Atlanta Road, Smyrna, Georgia

FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION

MODERN FACILITIES

Jas. N. Brawner, Jr., M.D.
Medical Director

Aloysius I. Miller, M.D.
Mark A. Gould, M.D.

Phone HEmlock 5-4486

Tennessee Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

E. Dan Smith, II

Underwritten By

Commercial Insurance Company

Newark, New Jersey

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

YOU *KNOW* how expensive hospital cost can be.

NOW *LEARN* about the broad new protection for your entire family available at new low rates from "The Doctors Company." (No obligation, of course.)

PHYSICIANS MUTUAL INSURANCE COMPANY

formerly

Physicians Casualty and Health Associations

"The Doctors Company"

Insuring Physicians & Dentists for 60 years.

Physicians Mutual Insurance Company
115 So. 42nd Street
Omaha 31, Nebraska

Please send details on your hospital protection plan.

NAME_____ AGE_____

ADDRESS_____

CITY_____ STATE_____

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

SAINT ALBANS

PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

Telephone: 639-2482

STAFF

James P. King, M.D., Director

William D. Keck, M.D.
Clinical Director
James K. Morrow, M.D.
Silas R. Beatty M.D.
Jack M. Rogers, M.D.

Edward W. Gamble, III, M.D.
Morgan E. Scott, M.D.
Jean M. Glasgow, M.D.
J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.
Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: 325-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Malcolm G. MacAulay, M.D.
Phone: 253-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
Richard D. Kitching, M.D.
Phone: 344-3578

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 1090

Now Available

TO MEMBERS OF THE TENNESSEE MEDICAL ASSOCIATION

Who can qualify for this insurance

$500.00 Per month DISABILITY INCOME PLAN—NON CANCELLABLE

Pays LIFETIME for accident—10 YEARS CERTAIN FOR ILLNESS

DOUBLE BENEFITS FOR ANY THREE MONTH PERIOD OF HOSPITALIZATION

GENERAL PROVISIONS:

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.

Complete aviation coverage on both Monthly Benefit and Principal Sum both private and commercial flying

Monthly benefits payable from the first day of disability

May also be issued with elimination periods if desired

Individually NON CANCELLABLE except for—

1. Non Payment of Premium within the grace period
2. Retired from practice

Guaranteed renewable to age 70. Renewable thereafter at the option of the Company

For further information please contact

Sovereign States Insurance Company

1808 West End Avenue

Post Office Box 767

Nashville, Tennessee

Carl Yeakey, Director of Professional Services

"A Participating Insurance Company Underwriting the Tennessee Plan"



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS** and **SYMPTOMS**: Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS**: Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT**: Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN
1104 Sudekum Bldg.
Nashville, Tenn.

SETH W. SIZER
1211 James Bldg.
Chattanooga, Tenn.

THERON M. LEMLY
1309 Poplar Ave.
Memphis, Tenn.



PHYSICIANS MUTUAL INSURANCE COMPANY
(FORMERLY PHYSICIANS CASUALTY ASSOCIATION AND PHYSICIANS HEALTH ASSOCIATION)
115 SOUTH 42ND STREET OMAHA 31, NEBRASKA

Something "New"

For

Doctors

Protect Your Most Valuable Asset

"Your Time"

Our New Sickness and Accident Protection Policy
Pays the Amount You Select up to $500.00 per Month
For Loss of Time Caused by Accident or Sickness

Insuring Physicians & Dentists for 60 years.

PHYSICIANS MUTUAL INSURANCE COMPANY

COUPON

Physicians Mutual Insurance Co.
115 So. 42nd St. Omaha 31, Nebraska
"Offering Protection to Physicians and Dentists
Since 1902"

Name_____ Age_____

Address_____ City_____



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D. James K. Ward, M.D.

P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala. Phones WOrth 1-1151

Reprint Price Schedule

THE JOURNAL OF TENNESSEE MEDICAL ASSOCIATION

	100	200	300	400	500	600	700	800	900	1000	Add'l 1000
2 pages	12.80	14.15	15.60	17.30	17.65	18.00	18.55	19.50	20.70	21.85	12.00
4 pages	18.80	23.00	25.60	28.50	29.60	30.25	31.20	33.55	35.65	37.80	22.60
8 pages	36.80	41.60	46.15	51.00	52.30	53.00	54.45	57.85	61.50	64.90	35.00
12 pages	48.10	53.40	58.60	63.75	64.70	65.15	66.60	70.80	75.00	79.00	41.60
Envelopes 8¼x11¼	13.30	16.00	18.50	21.30	22.50	24.00	26.40	28.80	31.20	33.60	26.40

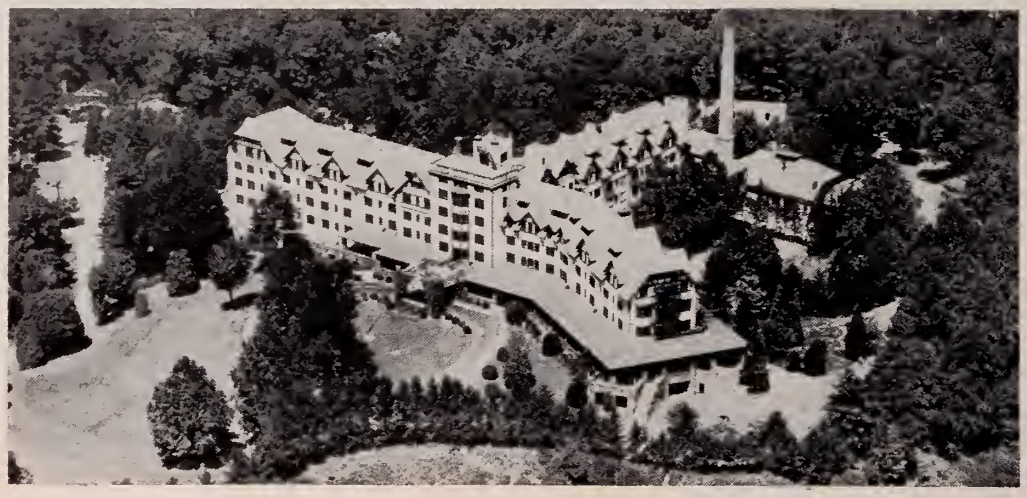
Reprints of articles in THE JOURNAL OF TENNESSEE MEDICAL ASSOCIATION are available at the following prices. Orders should be placed within 30 days following publication of the journal in which the article appears.

The above prices are for reprints supplied in the page size of THE JOURNAL OF TENNESSEE MEDICAL ASSOOCIATION. If smaller or larger sizes are required, special prices must be obtained. Address

McQUIDDY PRINTING COMPANY NASHVILLE, TENNESSEE

APPALACHIAN HALL
Established 1916

Asheville North Carolina



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D. MARK A. GRIFFIN, SR., M.D.
ROBERT A. GRIFFIN, M.D. MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

American Cyanamid Company XXIII, XXXI
Ames Co., Inc. LIII
Appalachian Hall LII
Blood Bank Foundation XXII
Brawner Hospital, Inc. XLIV
Brayten Pharmaceutical Company XXVI
Burroughs Wellcome & Co. VI, XLIII
Chatham Pharmaceuticals, Inc. XXVIII
Chicago Medical Society XL
City View Sanitarium XLVI
Coca-Cola XL
Endo Laboratories XVII
Farringer & Company XXXIV
First Texas Pharmaceuticals XXX
Geigy Pharmaceuticals XI, XII, XIII, XIV
Guild Opticians XLIV
Hart Laboratories XXXIII
Hill Crest Sanitarium LI
Kay Surgical, Inc. XXVIII
Lilly, Eli and Co. I, XXXVI
Mayrand, Inc., Pharmaceuticals XVI
McQuiddy Printing Co. LI
Mutual Benefit Life Ins. Co. XLIX
Nashville Pure Milk Co. XLIV
Nashville Surgical Supply Co., Inc. XLII
Parke-Davis and Company II, III
Physicians Mutual Ins. Co. XLVI, L
Physician Wanted XLIV
Robins, A. H. Co., Inc. VII, Insert, XXI, XXII
Roche Laboratories LIV
Rorer, William H. XXXIX
St. Albans XLVII
Saunders, W. B. Company XXVII
Schering Corp. XXXV
Searle, G. D. & Co. XXXVII
Smith, Kline & French Laboratories X
Smith, Reed, Thompson & Ellis Co. XLV
Sovereign States Ins. Co. XLVIII
Tafel Surgical Supply Co., Inc. XLVI
Wallace Laboratnries VIII, IX, XVIII, XXIV, XXV, XXIX, XLI
White Surgical Supply Co. XL
Winthrop Laboratories V, XV, XXXII, XXXVIII

neither **tension**, nor **spasm**,
nor **stasis**
stays this patient
from his
appointed rounds



DECHOLIN-BB®

. . . . . especially when
UPPER G.I. COMPLAINTS
have biliary implications

for nervous **tension** → **Each Tablet Contains:** BUTABARBITAL SODIUM 15 mg. (¼ gr.).
WARNING: May be habit forming

for smooth-muscle **spasm** → BELLADONNA EXTRACT 10 mg. (⅙ gr.).

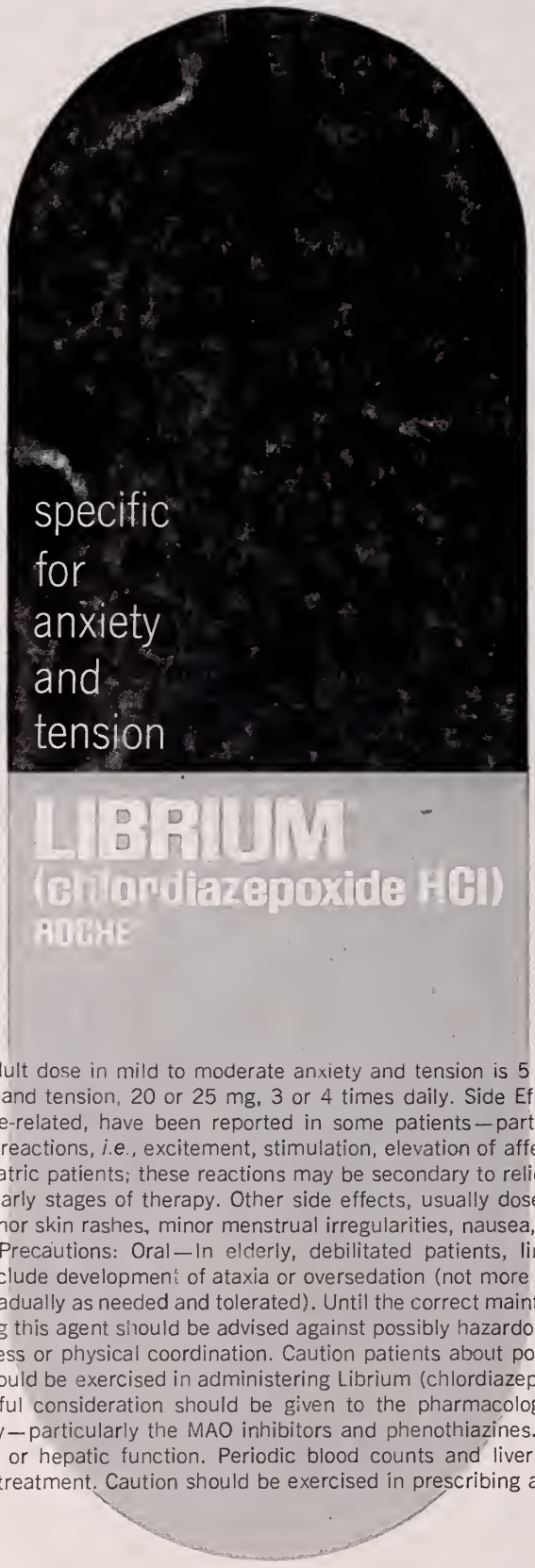
for biliary/intestinal **stasis** → DEHYDROCHOLIC ACID 250 mg. (3¾ gr.).

Average adult dose: 1 or, if necessary, 2 tablets three times daily. **Precautions:** Observe patients periodically for increased intraocular pressure and barbiturate habituation or addiction; caution drivers against possible drowsiness. **Side effects:** Dehydrocholic acid may cause transitory diarrhea; belladonna may cause blurred vision and dry mouth. **Contraindications:** Biliary tract obstruction, acute hepatitis, glaucoma, prostatic hypertrophy. **Available:** DECHOLIN-BB, bottles of 100 tablets. **Also:** DECHOLIN® with Belladonna (dehydrocholic acid, 250 mg.; belladonna extract, 10 mg.) and DECHOLIN® (dehydrocholic acid, 250 mg.), bottles of 100 and 500 tablets.

AMES COMPANY, INC. Elkhart • Indiana Toronto • Canada

349R263

ROCHE



Dosage: Oral—Usual adult dose in mild to moderate anxiety and tension is 5 or 10 mg, 3 or 4 times daily; in severe anxiety and tension, 20 or 25 mg, 3 or 4 times daily. Side Effects: Oral—Drowsiness and ataxia, usually dose-related, have been reported in some patients—particularly the elderly and debilitated. Paradoxical reactions, *i.e.*, excitement, stimulation, elevation of affect and acute rage, have been reported in psychiatric patients; these reactions may be secondary to relief of anxiety and should be watched for in the early stages of therapy. Other side effects, usually dose-related, have included isolated instances of minor skin rashes, minor menstrual irregularities, nausea, constipation, increased and decreased libido. Precautions: Oral—In elderly, debilitated patients, limit dosage to smallest effective amount to preclude development of ataxia or oversedation (not more than 10 mg per day initially, to be increased gradually as needed and tolerated). Until the correct maintenance dosage is established, patients receiving this agent should be advised against possibly hazardous procedures requiring complete mental alertness or physical coordination. Caution patients about possible combined effects with alcohol. Caution should be exercised in administering Librium (chlordiazepoxide HCl) to addiction-prone individuals. Careful consideration should be given to the pharmacology of any agents to be employed concomitantly—particularly the MAO inhibitors and phenothiazines. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests may be advisable in protracted treatment. Caution should be exercised in prescribing any therapeutic agent to pregnant patients.

THE JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION

TENNESSEE MEDICAL ASSOCIATION
129tn Annual Meeting
Peabody Hotel, Memphis, Tennessee
April 12-15, 1964

MID-SOUTH MEDICAL ASSEMBLY
Peabody Hotel, Memphis
February 11-14, 1964

NOVEMBER, 1963

Volume 56 **Number 11**

THE N.Y. ACADEMY OF MEDICINE
DEC -2 1963
LIBRARY



e of Contents on Page IV
t to Advertisers on Page LIV

The Journal of the TENNESSEE MEDICAL ASSOCIATION

Published Monthly

By Tennessee Medical Association

OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE

Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 11

NOVEMBER, 1963

Per Year, $5.00
Single Copy 50 Cents

Published Monthly

Contents

Indications for Initial and Maintenance Therapy with Antihypertensive Drugs, RICHARD A. OBENOUR, M.D., Knoxville, Tenn. 427

Problems in Anesthetic Management in the Presence of Antihypertensive Treatment, J. SUMPTER ANDERSON, JR., M.D., Nashville, Tenn. 429

Pseudotumor of the Orbit, Hyalin Bodies of the Disk; a Clinical Evaluation, ALICE R. DEUTSCH, M.D., and JOE S. TALLEY, M.D., Memphis, Tenn. 431

Case Report
Pseudohypoparathyroidism with Hypothyroidism, JOSEPH C. DENNISTON, M.D., and CHOON D. SON, M.D., Donelson, Tenn. 436

Management of Spontaneous Pneumothorax, CAPTAIN DUNCAN A. KILLEN, M.C., USAR, Nashville, Tenn. and LT. COLONEL LAWRENCE M. JACKSON, M.C., USA, Fort Belvoir, Va. 439

Staff Conference 443

Clinicopathologic Conference 450

President's Letter 454

Editorial 455

Deaths 457

Programs and News of Medical Societies 457

National News 457

Medical News in Tennessee 459

Personal News 462

Announcements 463

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 12, Tennessee.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE

R. H. KAMPMEIER, M.D., Editor

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein

Copyright, 1963, by the Tennessee Medical Journal



Notable increase in vigor, strength and sense of well-being

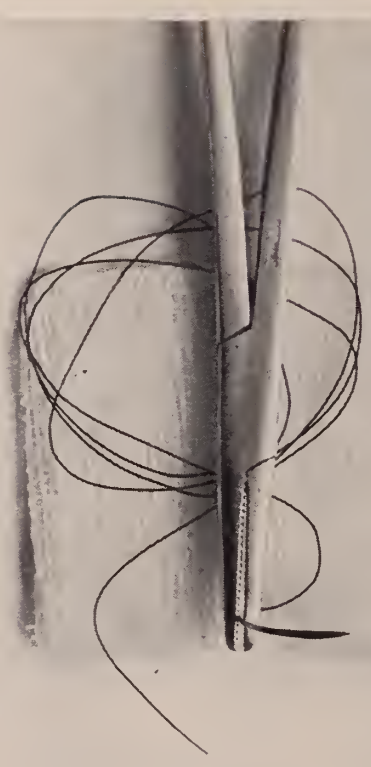
TROL (stanozolol-Winthrop), a heterocyclic steroid, combines anabolic effects with outstanding tolerance, stimulates appe- d promotes weight gain ... restores a positive metabolic balance. nteracts the catabolic effects of concomitant corticosteroid or therapy. WINSTROL (stanozolol-Winthrop) rebuilds body tissue t builds strength, confidence and a sense of well-being in con- s associated with excess protein breakdown, insufficient protein and inadequate nitrogen and mineral retention.

ffects and Precautions: Prolonged administration can produce irsutism, acne or voice change. In an occasional patient, edema een observed and in young women the menstrual periods have milder and shorter. These side effects are reversible, and pa- receiving prolonged treatment should be examined and ques- tioned periodically so that, should side effects appear, the dosage may be reduced or administration of the drug discontinued for a time. In patients with impaired cardiac and renal function, there is the possibility of sodium and water retention. Liver function tests may reveal an increase in bromsulphalein retention, particularly in elderly patients. In such cases, therapy should be discontinued. Although it has been used in patients with cancer of the prostate, its mild androgenic activity is considered by some investigators to be a contraindication.

Dosage: Usual adult dose, 1 tablet t.i.d. before or with meals; young women, 1 tablet b.i.d.; children (school age): up to 1 tablet t.i.d.; children (pre-school age): ½ tablet b.i.d. Available as scored tablets of 2 mg. in bottles of 100. For best results, administer with a high protein diet.

WINTHROP LABORATORIES, NEW YORK 18, N. Y.

rked improvement in appetite / Measurable weight gain Winthrop



In trauma,
whether it's
sutures, plaster,
splint or sling...

remember
'Empirin'
Compound
to relieve pain



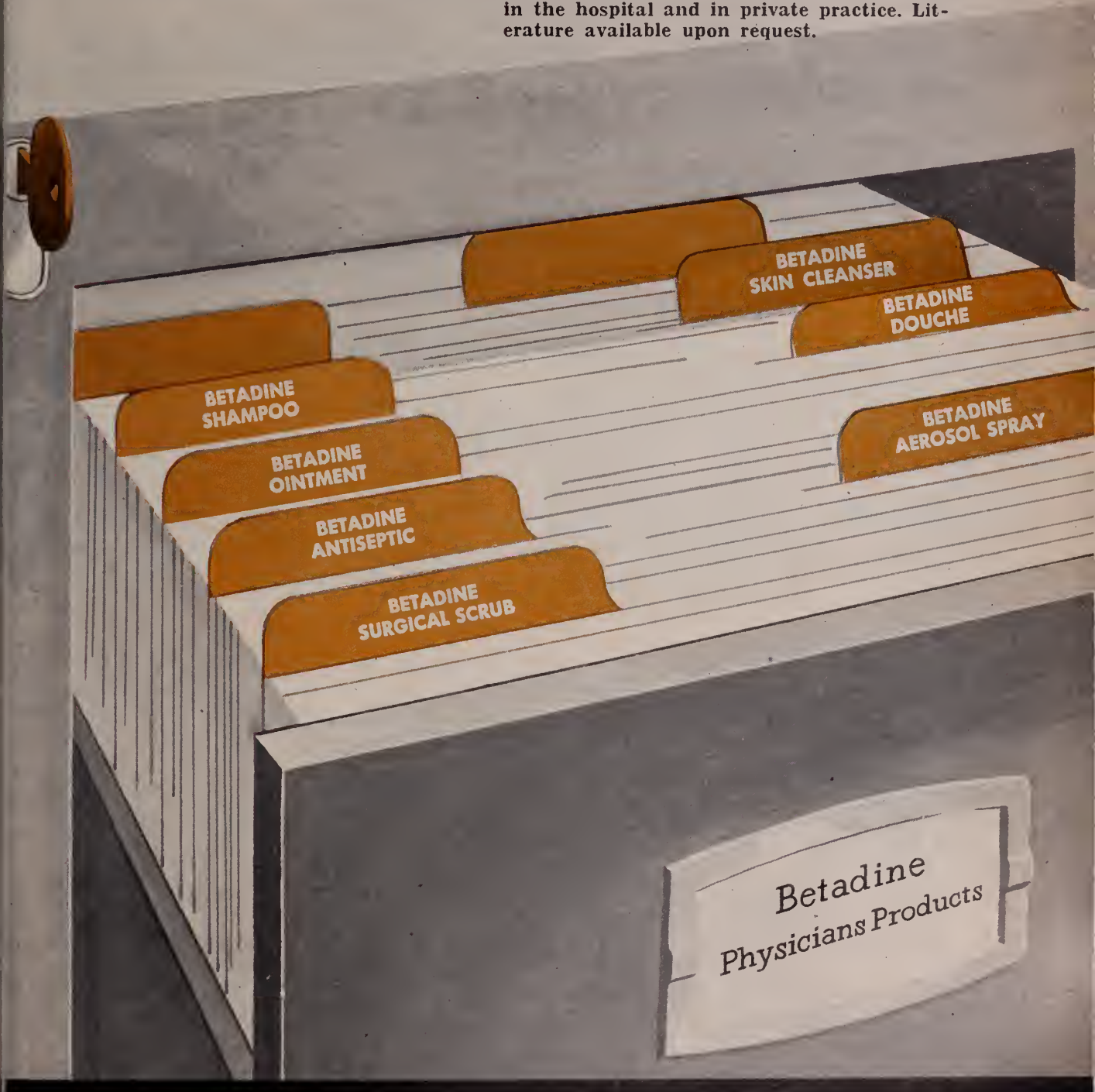
Also: 'Empirin'® Compound with Codeine Phosphate*
gr. ⅛—No. 1/gr. ¼—No. 2/gr. ½—No. 3/gr. 1—No. 4
*Warning—may be habit forming

Betadine®
Povidone-Iodine
Products
unlock a wide range of usefulness

Betadine Products, in all seven dosage forms, contain povidone-iodine, a complex of polyvinylpyrrolidone and iodine, providing all the germicidal properties of elemental iodine . . . yet Betadine (povidone-iodine) is nonirritating, nonsensitizing, and nontoxic to skin or mucosa.

Betadine Products are effective in preventing and treating a variety of infections frequently encountered in the practice of otolaryngology, orthopedics and orthopedic surgery, obstetrics and gynecology, oral surgery, pediatrics, surgery and dermatology.

The clinical results reported under various conditions of use make Betadine (povidone-iodine) preparations valuable adjuncts both in the hospital and in private practice. Literature available upon request.



PHYSICIANS PRODUCTS CO., INC.
PETERSBURG, VIRGINIA

The one tranquilizer that

BELONGS IN EVERY PRACTICE

it's versatile: The years have proved that 'Miltown' (meprobamate) is the one tranquilizer that is helpful in almost every aspect of daily practice. Virtually any of your patients, regardless of age, can be given the drug with confidence, either as a primary treatment or as an adjunct to other therapy. **Outstanding record of safety:** Over eight years of clinical use among millions of patients throughout the world — plus more than 1500 published reports covering the use of the drug in almost every field of medicine — support your prescriptions for 'Miltown' (meprobamate). This is why it *"belongs in every practice."*

dependable: 'Miltown' (meprobamate) is an established drug. There are no surprises in store for you or your patient. You can depend on it to help your patients through periods of emotional distress — and to help maintain their emotional stability.

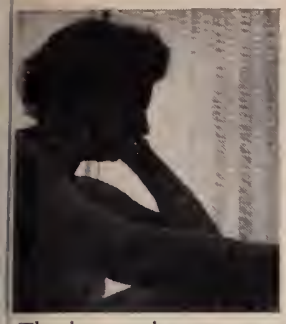
easy to use: Because 'Miltown' (meprobamate) is compatible with almost any other kind of drug therapy, you'll find it fits in easily with any program of treatment you are now using. It will not, therefore, complicate treatment of patients seen in clinical practice.

BRIEF SUMMARY: *Indications:* Anxiety and tension states, and all conditions in which anxiety and tension are symptoms. *Side Effects:* Slight drowsiness may occur and, rarely, allergic or idiosyncratic reactions, generally developing after 1-4 doses of the drug. *Contraindications:* Previous allergic or idiosyncratic reactions to meprobamate contraindicate subsequent use. *Precautions:* Should administration of meprobamate cause drowsiness or visual disturbances, the dose should be reduced. Operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Prescribe cautiously and in small quantities, to patients with suicidal tendencies. Massive overdosage may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after prolonged use at high dosage. *Complete product information available to physicians on request.*

USUAL ADULT DOSAGE: 1 or 2 400 mg. tablets t.i.d.

SUPPLIED: 400 mg. scored tablets, 200 mg. coated tablets.

CH-969A



The insomniac



The tense, nervous patient



The heart-disease patient



The surgical patient



girl with dermatosis



Tension headache



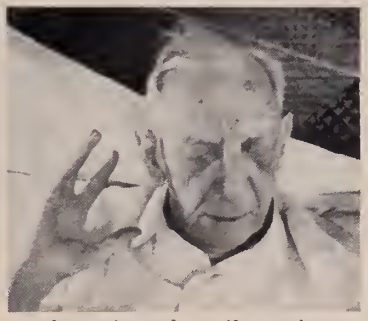
The woman in menopause



Anxious depression



remenstrual tension



The agitated senile patient



The alcoholic



The problem child

the original brand of
meprobamate

Miltown®



The G.I. patient

WALLACE LABORATORIES
Cranbury, N.J.



STARTING TOMORROW MORNING 

this capsule can help one of your overweight patients do without her favorite (fattening) foods at meals—and during all the hours in between.

Dexamyl® Spansule®
Trademark brand of sustained release capsules

Each No. 2 capsule contains 15 mg. of Dexedrine® (brand of dextro amphetamine sulfate) and 1½ gr. of amobarbital, derivative of barbituric acid [Warning, may be habit forming]. Each No. 1 capsule contains 10 mg. of Dexedrine (brand of dextro amphetamine sulfate) and 1 gr. of amobarbital [Warning, may be habit forming].

The active ingredients of the 'Spansule' capsule are so prepared that a therapeutic dose is released promptly and the remaining medication, released gradually and without interruption, sustains the effect for 10 to 12 hours.

INDICATIONS: (1) For control of appetite in overweight; (2) for mood elevation in depressive states.

USUAL DOSAGE: One 'Dexamyl' *Spansule* capsule taken in the morning.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Use with caution in patients hypersensitive to sympathomimetics or barbiturates and in coronary or cardiovascular disease or severe hypertension. Excessive use of the amphetamines by unstable individuals may result in a psychological dependence; in these rare instances withdrawal of medication is recommended. It is generally recognized that in pregnant patients all medications should be used cautiously, especially in the first trimester.

SUPPLIED: Bottles of 50 capsules.

Smith Kline & French Laboratories SK&F *Prescribing information Jan. 1963*

Important news in cardiac therapy

Two new clinical reports document successful long-term treatment of ischemic heart disease with

Persantin®, brand of dipyridamole

See next 3 pages

Study 1.
Griep,A.H.: Long-term Therapy of Ischemic Heart Disease With Oral Dipyridamole: A Report of Fifty Cases. Angiology 14:484, 1963.

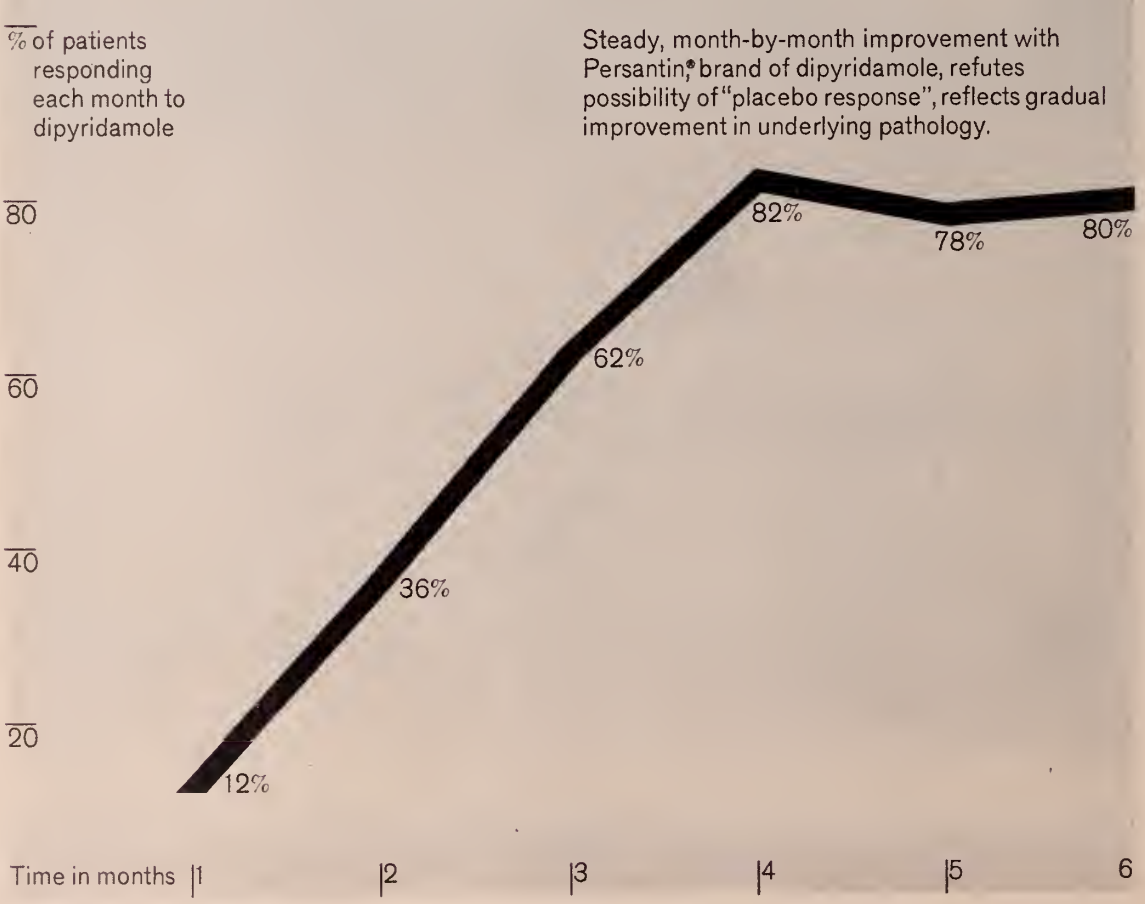
Persantin,® brand of dipyridamole, 25 mg. t.i.d. or q.i.d.,was administered continuously for 6 months to 50 patients with well authenticated ischemic heart disease with angina pectoris and ECG abnormalities. Results were evaluated on a monthly basis.

Persantin® brand of dipyridamole

"...long-term oral therapy with dipyridamole was of benefit in 80 per cent of the patients...

"relief [of angina] came slowly and was usually maximal after three to six months of continuous treatment"

Steady, month-by-month improvement with Persantin,® brand of dipyridamole, refutes possibility of "placebo response", reflects gradual improvement in underlying pathology.



Study 2.
Wirecki,M.: Dipyridamole (Persantin®): Evaluation of Long-Term Therapy in Angina Pectoris. Current Therapeutic Research 5:472, 1963.

In 40 ambulatory patients with myocardial ischemia, angina pectoris, and abnormal ECG findings, Persantin,® brand of dipyridamole, 25 mg. t.i.d., was administered continuously for 3 months.

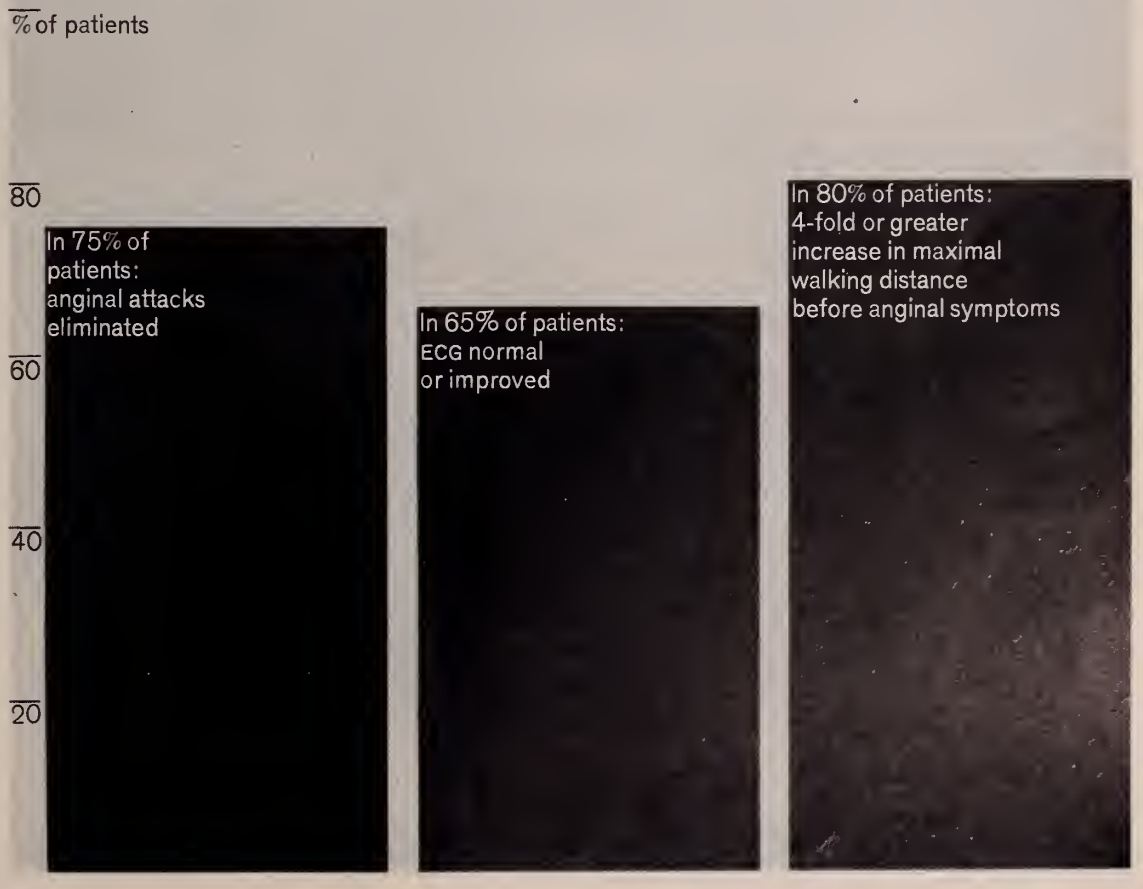
Geigy

After 3 months, 32 of 40 patients showed:

"...reduction or abolition of acute anginal attacks...

"complete or almost complete disappearance of ECG abnormalities...

"marked increase" in walking distance without anginal symptoms



Persantin® brand of dipyridamole

How long-term therapy provides clinical benefits reported on previous pages

1. By increasing energy yield
of the hypoxic myocardial cell, by direct action upon the sarcosomes (heart mitochondria).[1-5]

2. By improving collateral coronary circulation.
Prolonged oral administration of dipyridamole to animals with experimentally induced stenosis of a major coronary artery resulted in superior development of collateral coronary anastomoses and longer survival compared with controls.[6-9]

When given for prolonged periods and in adequate dosage, dipyridamole improves the coronary flow deficit of the ischemic myocardium while supporting cardiac metabolism during the period of repair. Clinically, this is manifested as steady improvement – anginal attacks diminish in frequency and intensity, as do other manifestations of insufficiency (dyspnea, fatigue, and, in many instances, abnormal electrocardiographic findings).

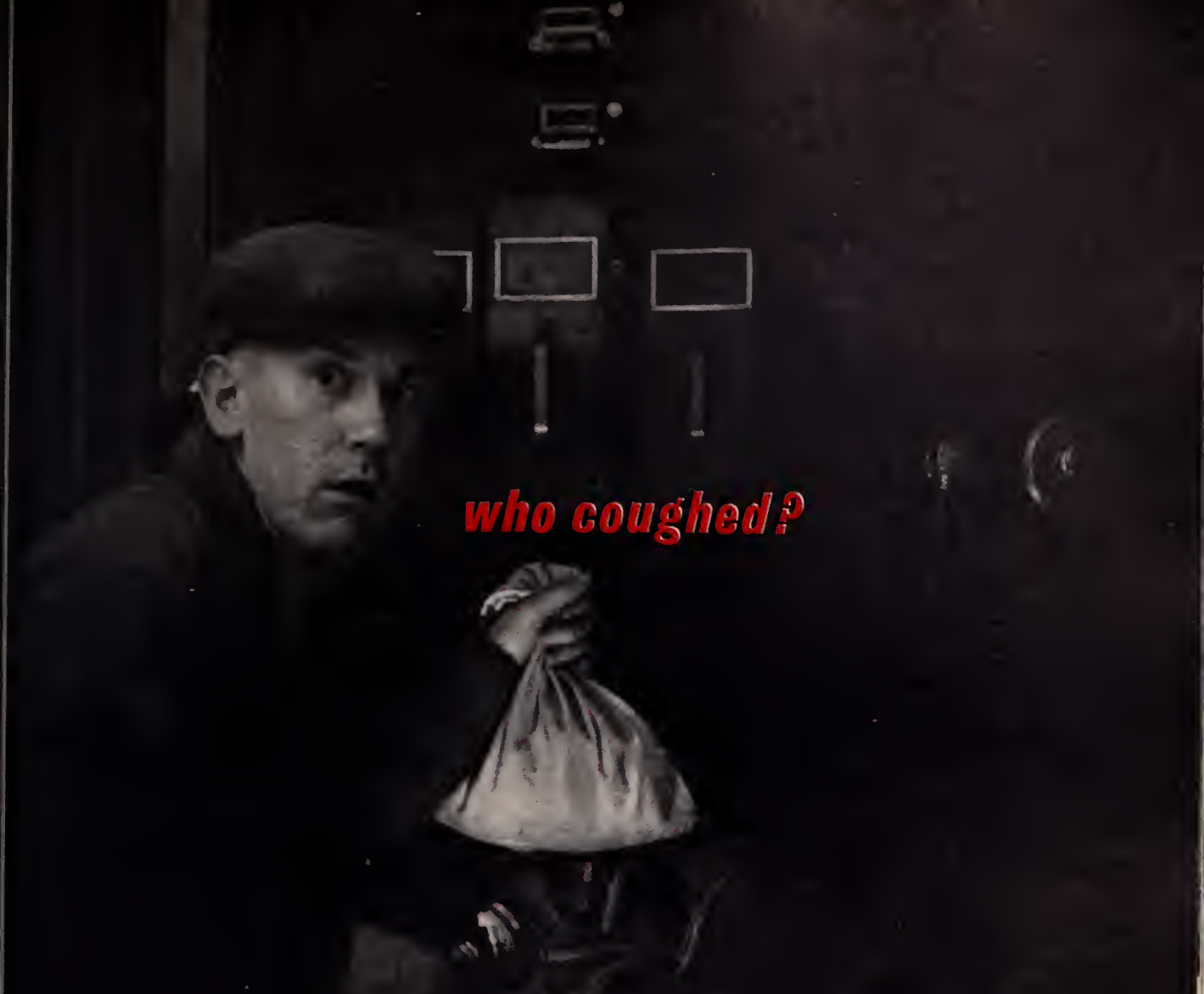
Availability:
Tablets of 25 mg., bottles of 100 and 1000.
Under license from Boehringer Ingelheim G.m.b.H.

Prescribing summary: Persantin,® brand of dipyridamole, is indicated in coronary and myocardial insufficiency, in a dosage of 2 to 6 tablets daily in divided doses before meals for several weeks. Side effects (headache, dizziness, nausea, flushing, weakness, syncope, mild gastrointestinal distress) are minimal and transient. The drug is not recommended in the acute phase of myocardial infarction, and should be used cautiously in hypotension.

References: 1.Kunz,W.;Schmid,W.,and Siess,M.: Arzneimittel-Forsch.12:1098,1962. 2.Siess,M.: Arzneimittel-Forsch.12:683,1962. 3.Laudahn,G.: Experientia 17:415,1961. 4.Lamprecht,W.: 27th Congress of the German Society for Circulation Research,Bad Nauheim,1961. 5.Hockerts,T.,and Bögelmann,G.: Arzneimittel-Forsch.9:47,1959. 6.Vineberg,A.M.,et al.: Canad.M.A.J.87:336,1962. 7.Chari,S.R.,et al.: Presented at the International Congress of Chest Physicians,New Delhi,1963. 8.Neuhaus,G.,et al.: Presented at the Fourth World Congress of Cardiology,Mexico City,1962. 9.Asada, S.,et al.: Japanese Circ.J.26:849,1962.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York, Distributors

PE-2290



for fast and long-lasting cough control

HYCOMINE® SYRUP

Each teaspoonful (5 cc.) contains:

Hycodan®	
Hydrocodone bitartrate . . 5 mg.	6.5 mg.
(Warning: May be habit-forming)	
Homatropine methylbromide 1.5 mg.	
Pyrilamine maleate	12.5 mg.
Phenylephrine hydrochloride	10 mg.
Ammonium chloride	60 mg.
Sodium citrate	85 mg.

in a highly palatable, cherry-flavored vehicle (methylparaben 0.13% and propylparaben 0.02% as preservatives)

INDICATIONS: For both productive and nonproductive cough. For relief of symptoms in tracheitis, bronchitis, pneumonia, pharyngitis, bronchial asthma, pertussis, and allied conditions; cough associated with allergy; in general, whenever cough medication is indicated.

DOSAGE: Average adult dose—1 teaspoonful after meals and at bedtime with food. Children 6 to 12 years, ½ teaspoonful; 3 to 6 years, ¼ teaspoonful; 1 to 3 years, 10 drops; 6 months to 1 year, 5 drops; after meals and at bedtime. On oral Rx where state laws permit. U.S. Pat. 2,630,400.

CAUTION: Should be used with caution in patients with known idiosyncrasies to phenylephrine HCl and in patients with moderate or severe hypertension, hyperthyroidism or advanced arteriosclerosis. In these patients use should not exceed three days. Hycomine Syrup is generally well tolerated but in some patients drowsiness, dizziness or nausea may occur. May be habit-forming.

Endo®

Literature on request

ENDO LABORATORIES Richmond Hill 18, New York

CORONARY VASODILATOR

. . . IN TIMED, SUSTAINED RELEASE FORM FOR PROTECTION DURING THE CRITICAL HOURS . . . .

3 COMBINATIONS FOR DESIRED EFFECT!

ANTORA-H

Phenobarbital (Warning: May be habit forming).	3/4 gr.
Hyoscyamine Sulfate	0.3858 mg.
Atropine Sulfate	0.0750 mg.
Hyoscine Hydrobromide	0.0222 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA-B

Secobarbituric Acid (Warning: May be habit forming).	50 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA

Pentaerythritol Tetranitrate	30 mg.

The ANTORA family offers wide latitude in treating the angina patient with or without anxiety syndromes or with spastic and hypertonis symptoms. The versatility of PETN justifies its use in several combinations to benefit cardiovascular patients. No incompatibility with nitroglycerine is evident.

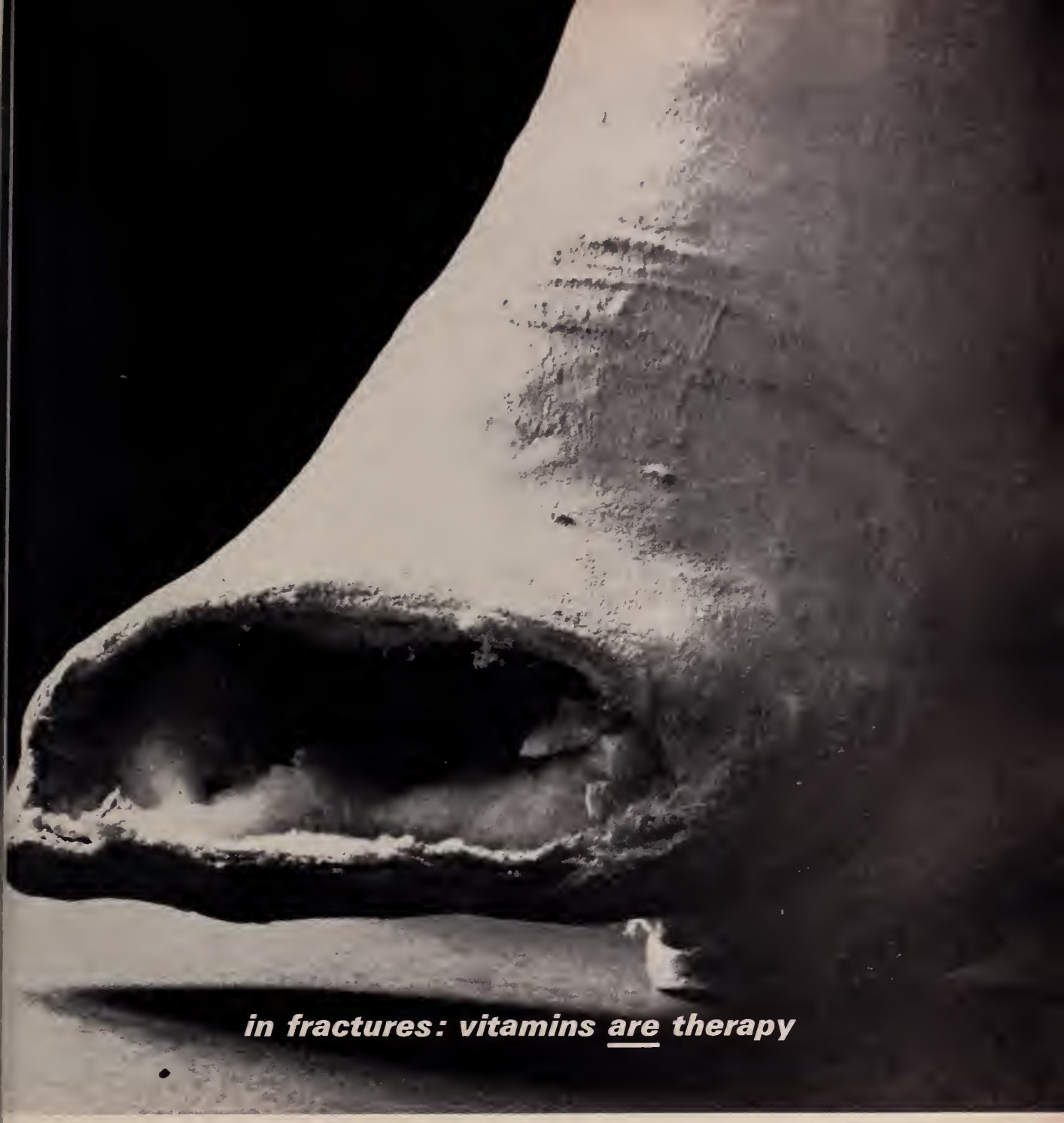
AVAILABLE: Bottles of 60 and 250 capsules.

BRIEF SUMMARY:

Side Effects: Transient headaches and nausea occasionally, not usually severe enough to discontinue medication. In a few sensitive patients, depression, arthralgias, xerostomia and myalgia may be observed. Contraindications: glaucoma, intraocular pressure, barbiturate hypersensitivity.

SAMPLES AND LITERATURE ON REQUEST

Mayrand, INC. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA



Few factors are more fundamental to tissue and bone healing than nutrition. Therapeutic allowances of B and C vitamins are important for rapid replenishment of vitamin reserves which may be depleted by the stress of fractures. Metabolic support with STRESSCAPS is a useful adjunct to an uneventful recovery.

FOR PROFESSIONAL

RECOMMENDATION ONLY

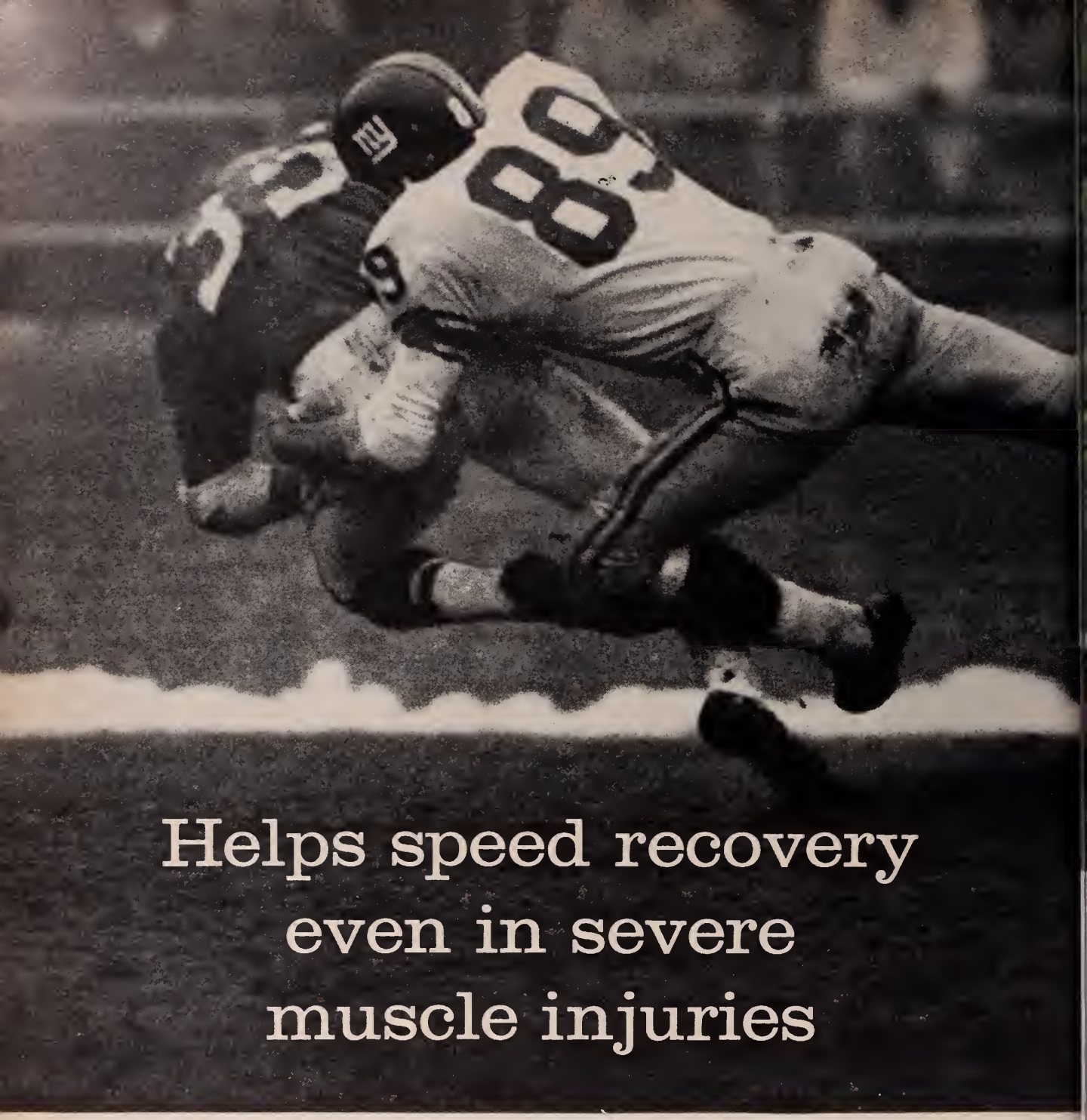
Each capsule contains: Vitamin B_1 (Thiamine Mononitrate)...10 mg. / Vitamin B_2 (Riboflavin)...10 mg. / Niacinamide...100 mg. / Vitamin C (Ascorbic Acid)...300 mg. / Vitamin B_6 (Pyridoxine HCl)...2 mg. / Vitamin B_{12} Crystalline...4 mcgm. / Calcium Pantothenate...20 mg. Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

6317-3

STRESSCAPS®

Stress Formula Vitamins Lederle



Helps speed recovery even in severe muscle injuries

Whether your muscle-injury patient is a professional athlete or just a weekend golfer, you can expect rapid results with 'Soma' (carisoprodol).

This unique drug breaks up both muscle spasm and pain at the same time. Onset of action takes only 30 minutes, and your patient will usually begin to feel better within hours.

As Conant demonstrated in a study of 106 patients with musculoskeletal injuries, 88% of the patients treated with 'Soma' (carisoprodol) achieved good to excellent results. *(Clinical Medicine,* March, 1962.)

Carisoprodol seldom produces side effects. Occasional drowsiness may occur, usually at higher than recommended dosage. Individual reactions may occur rarely. For severe athletic strains or everyday sprains, you can rely on 'Soma' (carisoprodol) to help speed recovery with notable safety.

USUAL DOSAGE: ONE 350 MG. TABLET Q.I.D.

The muscle relaxant with
an independent pain-relieving action

Soma®
carisoprodol

Wallace Laboratories, Cranbury, New Jersey



winter coughs ahead...
clear the tract with Robitussin®

ROBITUSSIN®
Each 5 cc. tsp. contains:
Glyceryl guaiacolate ..... 100 mg.

ROBITUSSIN® A-C
Robitussin with antihistamine and codeine.
Each 5 cc. tsp. contains:
Glyceryl guaiacolate ..... 100 mg.
Pheniramine maleate ..... 7.5 mg.
Codeine phosphate ..... 10 mg.
(exempt narcotic)

Photo: N. & W. Engine No. 611, last of the famous "Class J" locomotives, on its final run between Roanoke, Va., and Williamson, W. Va., Oct. 26, 1959.



For the coughing patient who labors to remove tenacious mucus from his respiratory tract, Robitussin provides a remarkably potent expectorant action. It contains glyceryl guaiacolate which increases respiratory tract fluid (R.T.F.) almost 200% to "clear the tract" of cough-inducing irritants. Increased R.T.F. also permits more efficient action of bronchial and tracheal cilia to further enhance the evacuation of sputum, thus reducing cough frequency and helping the cough remove its cause.

After more than thirteen years and millions of prescriptions, no serious side effects have been reported from Robitussin. And patient acceptance has been outstanding.

A. H. ROBINS COMPANY, INC., Richmond 20, Virginia

This is the season Allbee® with C is made for!



When a good old-fashioned winter proves too much for your modern-day patients, it's a comfort to know about Allbee with C. Consider its simple, rational, economical formula when patients need therapeutic amounts of B and C vitamins during the "flu" and u.r.i. season. **This is what Allbee with C is made of:** Thiamine mononitrate (B_1), 15 mg.; Riboflavin (B_2), 10 mg.; Pyridoxine HCl (B_6), 5 mg.; Nicotinamide, 50 mg.; Calcium pantothenate, 10 mg.; Ascorbic acid (vitamin C), 300 mg.

A. H. Robins, Co., Inc. Richmond 20, Va.



ACHROCIDIN®

TETRACYCLINE HCl-ANTIHISTAMINE-ANALGESIC COMPOUND

Each Tablet contains:

ACHROMYCIN® Tetracycline HCl	125 mg.	Caffeine	30 mg.
Acetophenetidin (Phenacetin)	120 mg.	Salicylamide	150 mg.
		Chlorothen Citrate	25 mg.

Effective in controlling tetracycline-sensitive bacterial infection and providing symptomatic relief in allergic diseases of the upper respiratory tract. Possible side effects are drowsiness, slight gastric distress, overgrowth of nonsusceptible organisms, tooth discoloration. The last named may occur only if the drug is given during tooth formation (late pregnancy, the neonatal period, early childhood). Average Adult Dosage: 2 Tablets four times daily.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

7142-3



Protects your angina patient better than vasodilators alone

'Miltrate' contains both pentaerythritol tetranitrate, which dilates the patient's coronary arteries, and meprobamate, which relieves his anxiety about his condition. Thus 'Miltrate' protects your angina patient better than vasodilators alone.

Pentaerythritol tetranitrate may infrequently cause nausea and mild headache, usually transient. Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Like all nitrate-containing drugs, 'Miltrate' should be given with caution in glaucoma.

Dosage: 1 or 2 tablets *before meals* and at bedtime. Individualization required.
Supplied: Bottles of 50 tablets.

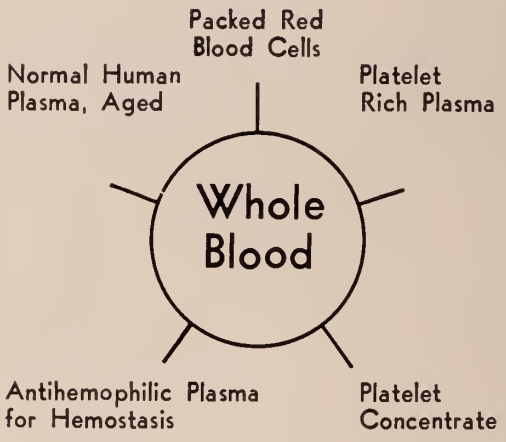
CML-9646

Miltrate®
meprobamate 200 mg.+
pentaerythritol tetranitrate 10 mg.

WALLACE LABORATORIES / *Cranbury, N. J.*

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE

why does 150 mg.



do more than 250 mg.



of other tetracyclines?

Because it has up to 3½ times the *in vitro* antibacterial activity[1]...combined with lower rate of decay in serum, slower renal clearance...a favorable depot effect, resulting from protein binding...all providing rapid, higher and sustained *in vivo* activity with as much as 2 days' extra activity.

DECLOMYCIN®

DEMETHYLCHLORTETRACYCLINE HCl

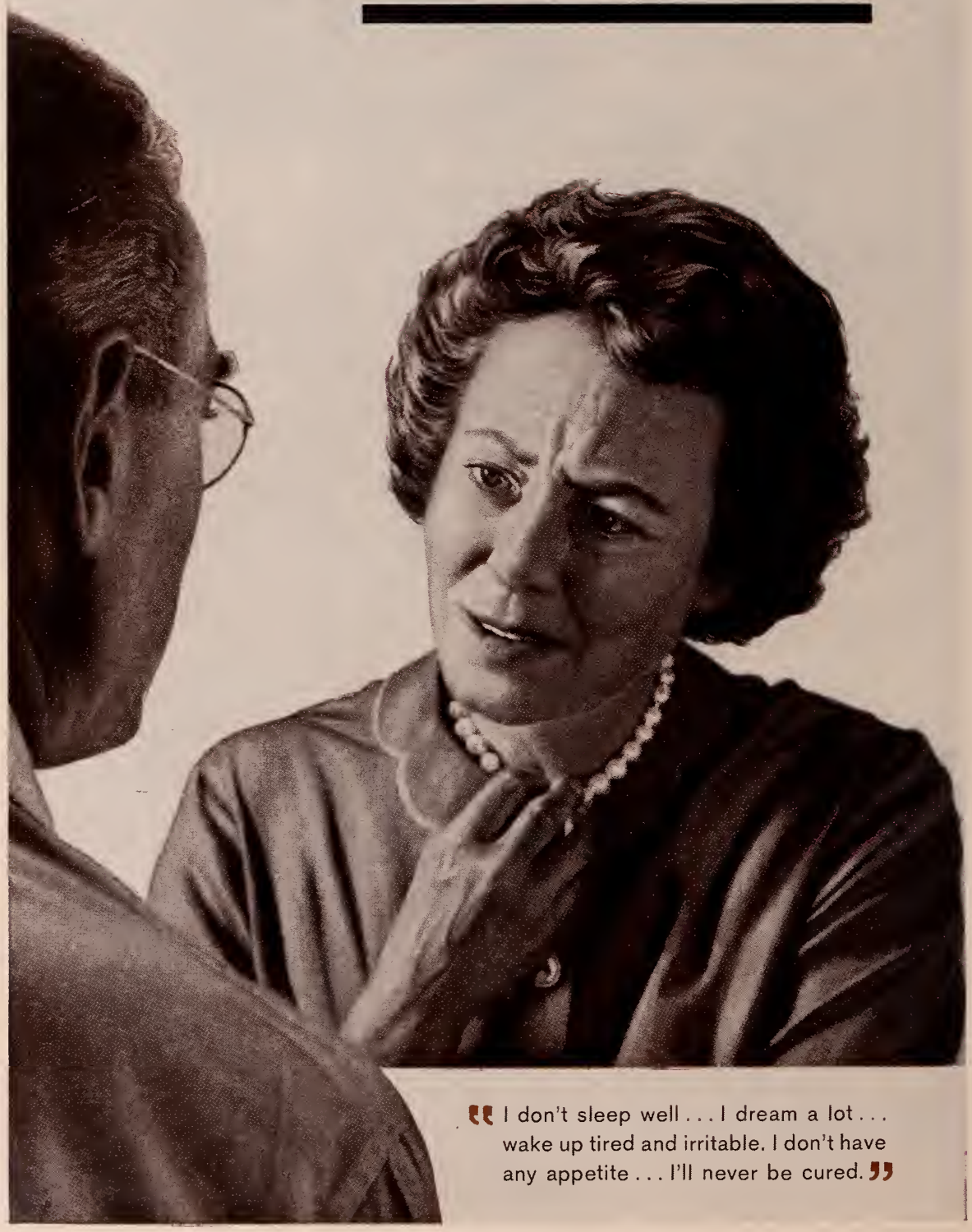
Effective in a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill—when the offending organisms are tetracycline-sensitive. *Side Effects* typical of tetracyclines which may occur: glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis, dermatitis, overgrowth of nonsusceptible organisms. Also: photodynamic reaction (making avoidance of direct sunlight advisable) and, very rarely, anaphylactoid reaction. Reduce dosage in impaired renal function. *Capsules*, 150 mg. and 75 mg. of demethylchlortetracycline HCl. *Average Adult Daily Dosage:* 150 mg. q.i.d. or 300 mg. b.i.d. 1. Sweeney, W. M.; Dornbush, A. C., and Hardy, S. M.: Demethylchlortetracycline and Tetracycline Compared. Relative *in vitro* Activity and Comparative Serum Concentrations During 7 Days of Continuous Therapy. *Amer. J. Med. Sci.* 243:296 (Mar.) 1962.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

7185.3

RECOGNIZE THIS PATIENT?



"I don't sleep well . . . I dream a lot . . . wake up tired and irritable. I don't have any appetite . . . I'll never be cured."

When you recognize signs of depression and anxiety and associate them with an organic condition—add 'Deprol' to your therapy.

Typical conditions in which 'Deprol' should be considered for control of the associated depression and anxiety:

Cancer ■ Cardiovascular disorders ■ Arthritis ■ Menopause ■ Alcoholism ■ Obesity ■ Asthma, hay fever and related allergies ■ Chronic infectious diseases ■ Pregnancy and post partum ■ Dermatoses ■ G.I. disorders, and many other organic disturbances.

When you recognize depression and anxiety traceable to an emotionally charged situation with no somatic disorder—start the patient on 'Deprol'.

Typical situations in which 'Deprol' is indicated:

Fear of cancer or other life-threatening disease ■ Pre- and post-operative fears ■ Marital problems ■ Death of a loved one ■ Loss of work ■ Retirement problems ■ Financial worries, and many other stressful situations.

Deprol®

meprobamate 400 mg. + benactyzine hydrochloride 1 mg.

BRIEF SUMMARY: *Indications:* Depression, especially when accompanied by anxiety, tension, agitation, rumination or insomnia. *Side Effects:* Slight drowsiness and, rarely, allergic reactions, due to meprobamate, and occasional dizziness or feeling of depersonalization in higher dosage, due to benactyzine, may occur. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage. *Complete product information available to physicians on request.*

USUAL ADULT DOSAGE: 1 tablet q.i.d. May be increased gradually, as needed, to 3 tablets q.i.d.; with establishment of relief, may be reduced gradually to maintenance levels.

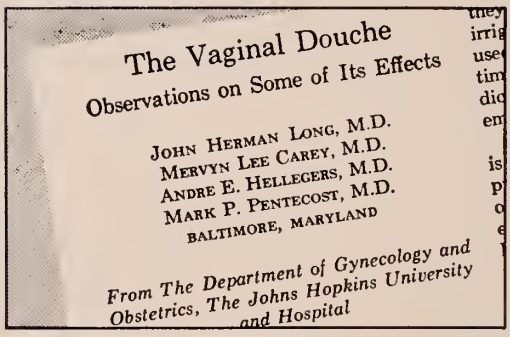
SUPPLIED: Light-pink, scored tablets. Bottles of 50.

WALLACE LABORATORIES / *Cranbury, N.J.*

CD-9689

A Valuable Contribution To Medical Literature

A DEFINITIVE STUDY ON DOUCHING



The Vaginal Douche

Observations on Some of Its Effects

JOHN HERMAN LONG, M.D.
MERVYN LEE CAREY, M.D.
ANDRE E. HELLEGERS, M.D.
MARK P. PENTECOST, M.D.
BALTIMORE, MARYLAND

From The Department of Gynecology and Obstetrics, The Johns Hopkins University and Hospital

A SEARCH OF MEDICAL LITERATURE REVEALS NO COMPARABLE OBJECTIVE EVALUATION OF THE SUBJECT.

The authors state at the outset,

"Each physician has his own idea of the value or harm of the vaginal douche and many have expressed such ideas in writing. Such opinions have been arrived at without any intensive investigation or observation of subjects using douches as compared to those not using them. The purpose of this study is to report our observations on three groups of patients, one taking no douches, a second douching with a medicated solution* and a third douching with plain water."[1]

1. West. J. Surg., Obsts. & Gynec.: *71*:122-127, 1963

*The medicinal powder used in this study was META CINE®, a scientifically formulated preparation containing: papain, lactose, citric acid, methyl salicylate, eucalyptol, menthol and chlorothymol.

OBSERVATIONS BASED ON EXTENSIVE AND THOROUGH EXAMINATION SCHEDULE.

"One hundred patients were selected at random, regardless of their chief complaint, from the general population attending the Out-Patient Gynecology Clinic of The Johns Hopkins Hospital. Those selected were reexamined at 1, 3, 6, 9 and 12 months after the initial visit."

"At intervals patients were switched to the regimen of another group so that comparison of the effect of douching or not douching might be made in the same individual."

Three years were required to complete the study.

An evaluation of the objective findings of the study demonstrates that douching with META CINE® had the following effects on vaginal secretion:

- increased Doderlein organisms,
- proved effective in lowering WBC counts,
- proved effective in increasing glycogen content.

META CINE® was found to be a good antagonist to vaginal discharge and irritation—and also proved effective in reducing cervicitis.

No untoward effects of douching were encountered in the study.

Reprints of the complete study and professional samples of Meta Cine are available on request.

BRAYTEN PHARMACEUTICAL COMPANY • *Chattanooga 9, Tennessee*

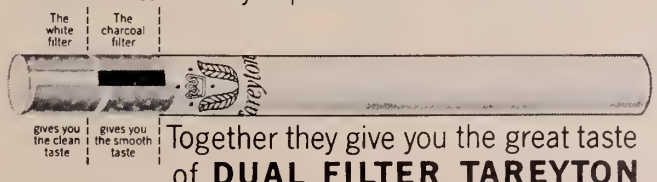
"Us Tareyton smokers would rather fight than switch!"



Join the Unswitchables and enjoy the great taste that inspires their aggressive loyalty.



Tareyton, of course, is famous for fine tobacco. Now see how the Activated Charcoal filter works with the white filter to actually improve the fine tobacco taste:



Together they give you the great taste of **DUAL FILTER TAREYTON**

Product of The American Tobacco Company — "Tobacco is our middle name" © A. T. Co.

reduce or obviate the need for transfusions and their attendant dangers

KOAGAMIN is indicated whenever capillary or venous bleeding presents a problem. KOAGAMIN has an outstanding safety record -- in 25 years of use no report of an untoward reaction has been received; however, it should be used with care on patients with a predisposition to thrombosis.



KOAGAMIN®

parenteral hemostat

Each cc contains: 5 mg. oxalic acid, 2.5 mg. malonic acid, phenal 0.25%; sodium carbonate as buffer.

Complete data with each 10cc vial. Therapy chart on request.

CHATHAM PHARMACEUTICALS, INC.
Newark 2, New Jersey

Distributed in Canada by Austin Laboratories, Ltd. • Paris, Ontario



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN

Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities

KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.



In Sprains, Strains and Muscle Spasm, 'Soma' Compound

numbs the pain...not the patient

A potent analgesic and
a superior muscle relaxant

1. A sprain or fracture is not a big clinical problem—but it does hurt. And if there is housework to do and kids to mind, the patient needs something to numb the pain.

2. A.P.C. compounds have limited usefulness; and the patient can buy them without your prescription. Unfortunately, most of them are too mild to be effective for sprains—and more potent products too often make the patient feel 'dopey'.

3. 'Soma' Compound is ideal in these cases. Since it contains both 'Soma' (carisoprodol) and acetophenetidin it is both a potent analgesic and a superior muscle relaxant; it also contains caffeine to offset any drowsiness *("numbs the pain...not the patient")*.

4. Why not try 'Soma' Compound? Dosage is 1 or 2 tablets q.i.d. For more severe pain, try 'Soma' Compound + Codeine. Dosage: 1 or 2 tablets q.i.d.

5. Hypersensitivity to carisoprodol may occur rarely. Codeine may produce addiction, nausea, vomiting, constipation or miosis.

Soma® Compound
carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg.

Soma® Compound + Codeine
carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg., codeine phosphate 16 mg. (Warning—may be habit forming.)

®WALLACE LABORATORIES / *Cranbury, N.J.*

CSO-9193



TRIPLE SULFA THERAPY is safe at levels of pH 5.5 or lower where the possibility of crystalluria would be greatest.

TRI-AZO-MUL
TRI-AZO-TAB

TRI-AZO-MUL

Each 100 cc contains:

Sulfadiazine ..... 3.381 gm. (Microcrystalline)

Sulfamerazine ..... 3.381 gm. (Microcrystalline)

Sulfamethazine ..... 3.381 gm. (Microcrystalline)

In a palatable, stable emulsion pleasantly flavored with True Raspberry Flavor. Each average teaspoonful (80 min.) represents .5 gm. (7.7 grs.) of three combined sulfa drugs in suspension. Supplied in pint bottles only.

CONTRAINDICATIONS: Sulfonamides are potent drugs, and may cause toxic reactions. Sulfonamides, therefore, should be given only under constant supervision of a Physician.

TRI-AZO-TAB

Each tablet represents:

Sulfadiazine ....0.166 gm. (2.57 gr.)

Sulfamerazine ..0.166 gm. (2.57 gr.)

Sulfamethazine .0.166 gm. (2.57 gr.)

Available in White or Pink colored tablets in bottles of 100, 500 or 1,000.

TRI-AZO-MUL (citrated) offers the same formula as TRI-AZO-MUL (plain) with sodium citrate (17.5 gm.).

First Texas (FTP)
Pharmaceuticals, Inc.
DALLAS • ATLANTA • SINCE 1901

Another Established Need Product . . . .

cut Rx writing by 2/3 in colds, flu or grippe

NAME _____

ADDRESS _____

℞

No need to write three separate prescriptions for antitussive, decongestant and analgesic relief of common cold, flu or grippe symptoms when it is therapeutically correct... economically sound...to specify

ANTITUSSIVE/DECONGESTANT/ANALGESIC
'EMPRAZIL-C'® TABLETS

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Phenacetin	150 mg.
Aspirin	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming

'Emprazil-C' Tablets are available on prescription only.

Dosage: Adults and children over 12 years—1 or 2 tablets—3 times daily as required. Children 6 to 12 years—1 tablet—3 times daily as required. **Caution:** While pseudoephedrine is virtually without pressor effect in normotensive patients, it should be used with caution in hypertension. Also, while chlorcyclizine has a low incidence of antihistaminic drowsiness, the usual precautions should be observed. **Supplied:** Bottles of 100 tablets.

Also available without codeine as 'EMPRAZIL'® TABLETS

Complete literature available on request from Professional Services Dept. PML.



BURROUGHS WELLCOME & CO (U.S.A.) INC.

Tuckahoe, N. Y.

"What type of drug is both a tranquilizer and a muscle relaxant?"

"a tranquilaxant."

TRANCOPAL®

brand of

chlormezanone

is a tranquilaxant

As a tranquilizer, TRANCOPAL (chlormezanone-Winthrop) "is effective in the symptomatic treatment of anxiety."[1] Its tranquilizing properties are similar to those of other mild tranquilizers. Furthermore, it relieves tension of both mind and muscle without interfering with normal activity or alertness.

The muscle relaxant properties of this drug provide an extra dimension of effectiveness... relaxing the spasm which so frequently accompanies psychogenic disorders. Hence, the total therapeutic effect of this true "tranquilaxant" is to produce a relaxed mind in a relaxed body.

Unsurpassed Tolerance: Less than 3 per cent of patients develop side effects with TRANCOPAL (chlormezanone-Winthrop), such as occasional drowsiness, dizziness, flushing, nausea, depression, weakness and drug rash. If severe, medication should be discontinued. In most patients, however, side effects are minor and do not necessitate interruption of treatment. There are no known contraindications.

Available: 200 mg. Caplets® (green colored, scored). 100 mg. Caplets (peach colored, scored), each in bottles of 100.

Dosage: Adults, 1 Caplet (200 mg.) three or four times daily; in some patients 100 mg. three or four times daily suffices. Children (5 to 12 years), from 50 to 100 mg. three or four times daily.

Reference: 1. A.M.A. Council on Drugs: J.A.M.A. 183:469 (Feb. 9) 1963.

Winthrop

WINTHROP LABORATORIES
New York, N. Y.

"They keep saying I'm sloppy!"



Nicozol® helps you restore your geriatric patients' interest in themselves

NICOZOL therapy can help you brighten the outlook of your aging patients who tend towards (1) untidiness, (2) irritability, (3) incompatibility, (4) lack of interest, and (5) loss of memory or alertness.

The NICOZOL formula helps improve mental acuity, increase the supply and use of oxygen in the brain, improve peripheral circulation—without excitation, depression, or other untoward effects.

NICOZOL can help you keep your aging patients actively alert and at ease with themselves, their families, and others.

Supplied: NICOZOL tablets (and capsules) in bottles of 100 and 1000. NICOZOL elixir in pints and gallons.

Precautions: May produce overstimulation in high doses. Discontinue if muscular twitchings or clonic convulsions occur. The flush produced in sensitive individuals is transient and harmless.

Average Dose: 1 to 2 tablets (or capsules) 3 times a day. 1 teaspoonful elixir 3 times a day.

Formula: Each tablet or capsule contains:
Pentylenetetrazol ..... 100 mg.
Nicotinic Acid ..... 50 mg.
Each teaspoonful (5 cc.) elixir contains:
Pentylenetetrazol ..... 200 mg.
Nicotinic Acid ..... 100 mg.
(as the sodium salt)
Alcohol 5%

HART | Division of A. J. Parker Co. LABORATORIES Bryn Mawr, Pa., Winston-Salem, N.C.

NICOZOL®

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY

Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
50/150	84.67	202.61
100/300	92.29	220.83
200/300	96.32	230.48
300/600	112.80	253.20
500/1 Million	132.83	278.85
1 Million/1 Million	139.55	294.93

X-RAY—RADIUM OR SHOCK THERAPY

5/15	89.60	152.00
50/150	169.34	287.28
100/300	184.58	313.12
200/300	192.64	326.80
300/600	213.60	354.00
500/1 Million	237.66	383.68
1 Million/1 Million	251.10	406.48

1. Partnership liability, increase premium for each partner by 20%
2. Anesthesiologists take Physicians rates.
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Other limits will be quoted on request.

Your policy backed by
Assets over $40,000,000

Shelby Mutual Insurance Co.
of Shelby, Ohio

***20% off on Hospital—Professional Liability**

***For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.**

HOW TO WIN FRIENDS...

little



New
Orange Flavored
Bayer Aspirin for Children
is sweet
all the way through,
so children
take it readily.
The GRIP-TIGHT CAP ----------→
on the bottle
helps keep them
from taking it
on their own.

Bottles of 50 tablets
(1¼ grains each)

NOW!
NEW ORANGE FLAVOR!

We will be pleased to send
professional samples on request.

THE BAYER COMPANY
Division of Sterling Drug Inc. Dept. 112
1450 Broadway, New York 18, N.Y.



Empty capsules are filled by the finest precision machinery available . . . but no machine is perfect. That's why all Lilly Pulvules® (filled capsules) are given the "thirty-minute checkup" to be certain that uniformity is maintained. At least once every thirty minutes ten filled capsules are taken from each machine and carefully weighed on a prescription balance. In addition, the checks are double-checked at least four times each day . . . another of the many stringent controls which assure you that the Lilly products you prescribe provide quality that merits the full measure of your confidence.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

300680

Journal of the Tennessee Medical Association
OWNED AND PUBLISHED BY THE ASSOCIATION
Volume 56 NOVEMBER, 1963 Number 11

Indications for Initial and Maintenance Therapy with Antihypertensive Drugs*

RICHARD A. OBENOUR, M.D., Knoxville, Tenn.

In considering indications for therapy in hypertension the first question to answer is—does therapy benefit the hypertensive patient?

To examine this issue objectively it will first be necessary to consider the natural course of essential hypertension and it will further be necessary to differentiate between various degrees of severity of this disease. Statistics indicate that even a slight elevation in blood pressure, either systolic or diastolic, is associated with increased mortality. It is well known, however, that the course of essential hypertension is variable and may be quite benign.[1] It is probable, but not proved, that sustained lowering of the blood pressure will favorably reduce this increased mortality. The therapy of benign essential hypertension, therefore, does not rest on a firm foundation of objective data, but rather on clinical observation and intuition. With this in mind, then, it is not surprising that there exist many opinions as regards to when, and to what extent to treat benign essential hypertension. In contrast, in the case of malignant hypertension the evidence strongly favors vigorous treatment.[2]

The next consideration is the risk involved when therapy is compared to the risk of the natural course of the disease. We should also keep in mind that we do not know to what extent the elevation of blood pressure per se is responsible for symptoms or complications of essential hypertension. One would be reluctant to accept the morbidity and mortality of intensive antihypertensive therapy in a patient with a mild elevation of blood pressure but without symptoms or complications which could be relieved by the therapy. Finally, before considering the specific indications for therapy, let us think briefly about what constitutes hypertension and how we should determine its existence. For the purpose of discussion I shall divide hypertension into *mild, moderate* and *severe* varieties. As you know such a division into these types is somewhat arbitrary and is done so for the sake of convenience and discussion.

In the *mild* form of hypertension the blood pressure is labile and generally varies about the upper limit of normal and, in fact, frequently falls into the normal range. There are no symptoms or complications in this variety of hypertension and blood pressure readings do not exceed 110 diastolic. In this group of labile hypertensives vigorous treatment is not indicated, although these patients should be followed as candidates for later sustained hypertension.

The systolic blood pressure elevation without a concomitant elevation in diastolic pressure, a situation which often occurs in arteriosclerosis, does not constitute the diagnosis of hypertension and therefore does not warrant antihypertensive therapy. Such therapy may, in fact, cause unpleasant cardiac or cerebral symptoms. An occasional anxious patient will have an elevated blood pressure in the physician's office but not when the pressure is recorded at home. One may attain an erroneous idea of the patient's disease if this is not borne in mind. Along similar lines the blood pressure recordings taken after a few days of bed rest correlate better with prognosis than do occasional blood pressure recordings. These,

*From the Symposium on Antihypertensive Drugs, the Annual Meeting of the Tennessee Medical Association, April 18, 1963, Knoxville, Tenn.

then, are just a few of the many factors which must be borne in mind before making a diagnosis of hypertension and initiating therapy.

If on the other hand, the patient frequently has blood pressure elevations of 100 to 110 diastolic, one would be justified in adopting a simple therapeutic program, such as one using the thiazides or mild sedatives as phenobarbital. The occurrence of major drug complications in this group contraindicates pursuit of the therapy inasmuch as documented benefit from therapy in this group is lacking. Therapy with blocking agents is never indicated in mild benign essential hypertension. In the *moderately* severe hypertensive group lowering of the blood pressure is desirable, if it can be accomplished with minimal and not seriously distressing side effects. In this group we may include all persons who have sustained hypertension of 160/100 or greater.

In the *severe* essential hypertensive group reduction of blood pressure should be accomplished even at the expense of discomfort and inconvenience to the patient. This group includes all of the patients who have sustained elevations of blood pressure of over 110 to 120 diastolic and who have evidence of complications of hypertension, such as retinal hemorrhages, renal disease, heart failure or hypertensive encephalopathy. The use of any and all of the therapeutic armamentarium is justified in this group, depending on the acuteness of the situation. In the patients who fall into the severe hypertensive group, but who have azotemia, angina, cerebral insufficiency, coronary insufficiency or thrombosis, the reduction of blood pressure is nevertheless advisable but must be undertaken much more cautiously with particular attention being paid to these complications.

In respect to complications, another important concept is the avoidance of specific drugs which may be contraindicated in a particular patient due to some individual intolerance. An example of this might be gastric acid stimulation by reserpine in a patient with peptic ulcer, or a depressive reaction in a patient who is taking reserpine. Individual intolerance to one agent, however, does not altogether contraindicate antihypertensive therapy since suitable substitutions can be made with other drugs.

In certain situations, including hypertensive encephalopathy, cerebral hemorrhage, or severe left-sided heart failure, rapid lowering of blood pressure is necessary. In this situation the use of trimethaphan (Arfonad) or sodium nitroprusside may be indicated, but should be used only by those familiar with these drugs.

Having decided that a particular patient needs antihypertensive therapy, the program should be continued indefinitely unless the clinical situation is changed, as by removal of some etiologic factor, or development of some untoward reaction.

In conclusion, we have noted that there is increased mortality associated with persistent elevation of the blood pressure. We hope, but cannot prove, that sustained lowering of the blood pressure will reverse this situation. In establishing indications and evaluating results of antihypertensive therapy, one should bear in mind the variable and sometimes benign course of essential hypertension. The intensity of antihypertensive therapy should depend on the severity of the disease and the presence or absence of its complications. Therapy should not be undertaken unless the diagnosis is well documented. The risk of therapy should be weighed in each situation against the possible benefits to the patient.

References

1. Friedbert, Charles K.: Control of Hypertension. Diseases of the Heart. Philadelphia. W. B. Saunders Co. 1956.

2. Kinsey, D., Whitelaw, G. P., Walther, R. J., Theophilis, C. A. and Smithwick, R. H.: The Long Term Follow-up of Malignant Hypertension, J.A.M.A. 181:571, 1962.

Problems in Anesthetic Management in the Presence of Antihypertensive Treatment*

J. SUMPTER ANDERSON, JR., M.D., Nashville, Tenn.

Problems in anesthetic management in the presence of antihypertensive therapy result from the altered response of these patients to the anesthetic drugs and distortion of the mechanisms which normally protect a patient from stress.

The physiologic abnormalities which effect anesthetic management in patients on antihypertensive therapy include:

(1) Depression of the contractility of the vascular smooth muscle and the myocardium resulting from decreased intrinsic supplies of epinephrine and/or norepinephrine or blockade of their effect on these tissues.

(2) Depression of sympathetic autonomic control centers in the central nervous system and enhancement of parasympathetic depressor reflexes.

(3) Decrease in plasma volume and electrolyte deficiencies.

(4) Status of the pre-existing cardiovascular disease.

These patients, therefore, are unable to vasoconstrict effectively and cannot increase the pumping force of the myocardium. They have a relatively fixed peripheral resistance, central venous pressure and cardiac output. Parasympathetic depressor reflexes will produce profound hypotension because they are unchecked by normal sympathetic pressor activity. Electrolyte imbalance, especially acidosis, resulting from the surgical disease will add to the hypotensive tendency by depressing the myocardium and vascular smooth muscle. Any decrease in blood volume by dehydration, anemia or hemorrhage may result in hypotension. These patients are almost completely unable to compensate for blood loss.

Depression produced by any anesthetic agent is always accompanied by pharmacologic supression of the vascular smooth muscle, myocardium, and mechanisms of autonomic control. In normal patients, sympathetic pressor activity developing in response to the stress of anesthesia prevents hypotension until deep levels of anesthesia are reached. This protective mechanism is hypoactive in most patients on antihypertensive therapy.

All adults for whom an anesthetic is contemplated should be asked if they take any drugs regularly. Those found to be on antihypertensive drugs must be carefully evaluated before anesthesia. If a medical reevaluation discloses that such treatment is of little actual benefit to the patient and the operation is elective, no anesthetic should be given until the particular drug has worn off. If the patient has benefited so greatly from antihypertensive therapy that withholding treatment might lead to relapse into symptomatic hypertensive cardiovascular disease, I believe the medication should be continued during the operative episode. Surgical emergencies must, of course, be treated when presented. It is essential that preoperative anesthetic and postoperative management be expert, detailed, and individualized in these patients to avoid mortality.

The ephedrine challenge test described by Crandell[1] may help determine the extent to which a patient's vasoconstrictive responses have been suppressed, since ephedrine elevates the blood pressure only in the presence of an intact norepinephrine effector mechanism. This test gives no assurance that an individual patient will not develop hypotension related to antihypertensive therapy during anesthesia.

Preoperative preparation must include appropriate therapy for the underlying cardiovascular disease. Dehydration and elec-

*From the Symposium on Antihypertensive Drugs, the Annual Meeting of the Tennessee Medical Association, April 8, 1963, Knoxville, Tenn.

trolyte disturbances are corrected by intravenous fluids as necessary. Any blood loss is replaced prior to anesthesia and adequate blood must be ready for use during surgery.

Premedication should be appropriate for age and includes a full dose of atropine, 0.4 to 0.6 mg., to suppress parasympathetic reflexes.

Spinal anesthesia is preferred for operations on the lower extremity or perineum because it can be accomplished with a minimal sympathetic block. High spinal is never given because the combination of chemical sympathetic suppression and extensive nerve block sympathectomy often produces bizarre responses in the blood pressure which are most difficult to manage. Peripheral nerve blocks are used whenever feasible. It is possible, however, for patients on antihypertensive therapy to become hypotensive during peripheral block or local anesthesia due to blood loss, premedicant drugs, or the systemic effect of absorbed local anesthetic drugs.

During anesthesia, pulse and blood pressure must be monitored constantly. The blood pressure should be taken every minute and more often during periods of change. Hypertensive patients often have sclerotic coronary arteries and will quickly develop myocardial ischemia and infarction if diastolic hypotension persists. Tidal volume of respiration must be kept normal during induction and each minute of anesthesia by assisted and controlled ventillation. Hypoxia or carbon dioxide accumulation will result in rapid, severe circulatory depression. The anesthetic gases should contain at least 30% oxygen. The ultra short-acting barbiturates, given slowly and in small doses, are suitable for induction. If injected rapidly they will cause cardiac depression and vasodilation with peripheral pooling of blood and hypotension. Anesthesia may be maintained with nitrous oxide, cyclopropane or ether in a light plane. Halothane may be used but has a greater tendency to allow parasympathetic hypotensive reflexes. Muscle relaxants are used as needed in moderate dose. Curare has a ganglion blocking action which may produce hypotension, and succinyldicholine shows a myocardial depressor effect similar to the effect of acetylcholine, in some patients. Any relaxant may have a prolonged or exaggerated effect in the presence of electrolyte imbalance.

The surgeon should try to avoid sudden or vigorous manipulation of structures which is likely to result in parasympathetic reflexes. Surgeon and anesthesiologist should both anticipate these reflexes and see that blood is replaced as lost. If hypotension develops rapid treatment must follow. Surgical manipulation should be stopped. Anesthetic agents should be reduced in concentration or discontinued. The patient is ventillated with 100% oxygen if diastolic blood pressure has dropped more than 15 to 20 mm. mercury. A vasopressor, such as methoxamine or metaraminol, which has a direct action on effector sites in blood vessels should be used intravenously if needed to restore the diastolic blood pressure to former levels. If the pulse is slow, or if the response to the vasopressor is not immediate and satisfactory, atropine 0.4 to 1.0 mg. should be given intravenously. Blood volume must be replaced promptly if blood loss is a cause or contributing factor in the hypotensive episode. Following correction of the hypotension, surgery and the anesthetic may be cautiously resumed. Postoperatively the blood pressure is followed closely for 24 hours or longer. During early recovery, returning parasympathetic reflexes may cause bradycardia and hypotension. Hypotension may develop due to continuing loss of fluid or blood in the operative area. Pharmacologic depression of the cardiovascular system, or respiratory depression with hypoxia, or accumulation of carbon dioxide may result following injudicious use of narcotics or antiemetic drugs. These may cause sudden hypotension which must be appropriately treated. Fluid and electrolyte balance must be meticulously maintained throughout the course.

References

1. Crandell, D. K.: J.A.M.A. 179:495.

Pseudotumor of the Orbit, Hyalin Bodies of the Disk; a Clinical Evaluation.*

ALICE R. DEUTSCH, M.D., and JOE S. TALLEY, M.D., Memphis, Tenn.

The evaluation of unilateral proptosis associated with unilateral papilledema presents a difficult differential diagnostic problem. The four main causes for monocular proptosis are endocrine diseases, orbital benign and malignant neoplasms, periostitis of the apex of the orbit, and so called pseudotumors.

Monocular papilledema due to raised intracranial pressure is exceptional, especially in the presence of a normal disk in the other eye; primary tumors of the optic nerve cause early optic atrophy and only very rarely cause papilledema whenever their location obstructs venous return. The same is true for orbital tumors. Even large orbital tumors only seldomly show pressure on the nerve or blockage of the venous return.

Thyroid activity tests, x-ray, and corresponding laboratory studies will, if negative, exclude potential endocrine diseases. Normal x-ray findings of the optic foramen and sphenoid fissure eliminate the presence of the orbital apex syndrome. Orbital tumors and pseudotumors are usually very difficult to differentiate, a slowly progressive axial or excentric exophthalmos without pain and inflammatory signs being frequently but not always characteristic for the former. Pseudotumors develop more rapidly, cause pain, palpebral swelling, and chemosis, impairment of ocular motility and various disturbances of central vision. They rarely cause field defects. Localized palpable masses especially in the lower orbit have been described as significant. Paleness of the disk and edema of the disk have been observed.

Pathologic findings reveal a certain basic pattern and consisted of chronic nonspecific inflammatory granulation tissue, containing diffuse follicular areas of plasma cells and lymphocytes, perivascular round cell infiltrations, infiltrations and degenerations of the intra-orbital muscles, and localized sclerosis and hyalinization. There are, however, definite histopathologic variations, including reactive lymphoblastic hyperplasia, fat necrosis, with and without formation of lipogranulomas, the gradual progression of malignant lymphomas, the unfolding of Hodgkin's disease, polyarteritis nodosa, eosinophilic granuloma, and even lymphosarcomas. Reese[1] emphasized the comparative small numbers of published observations, in spite of the fact that "pseudotumors" were frequent causes of monocular exophthalmos. He regrets the unjustified and unnecessary orbital exenteration. He even objects to routine biopsies because of the possible occurrence of orbital hemorrhages and monster edema afterwards. Lethal midline granulomas, however, and other specific entities (syphilis, tuberculosis, and parasites) should always be ruled out before starting symptomatic treatment. He suggests x-ray treatment, even in the absence of a reticuloendotheliosis, or medical treatment with steroids as long as there were no corneal exposure, progressive disk-changes or failing vision.

We had the opportunity to observe 2 patients with monocular pseudotumor and papilledema—one of them showing a temporary embarrassment in the circulation of the temporal superior branch of the retinal artery; the other patient having bilateral hyalin bodies of the disk disclosed by a previous fundus examination. We also want to add a third case, referring to a patient with bilateral pseudo-papilledema, hyalin bodies of the optic nerve-head and severe progressive field-loss.

Case 1. A 42 year old engineer was seen for the first time in April, 1962. He complained of pain in the right eye and some foreign body sensation, increasing in severity for some two weeks. His general health had been good, except an

*Read at the annual meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 9, 1963, Knoxville, Tenn.

increase in his blood pressure for which he took medication, but not regularly.

Examination showed mild swelling of the upper lid, chemosis, and normal motility of the right eye. The pupil was normal and reacted well. The media were clear. The disk showed a swelling of 4D with clear view at the entrance of the vessels, a ring reflex around the disk, tortuosity of the veins, and some narrowing of the arteries. There was a definite retrobulbar resistance to palpation. The left eye was normal. Vision = od = 20/30; os = 20/20, with correction. There was only a mild increase in the blind spot and the peripheral field was normal. The intra-ocular tension was difficult to evaluate in the right eye, but was 17.3 mm. Hg. in the left eye.

Since it was not possible to admit Mr. R. to the hospital the same day, he was asked to return to the office the next day. Externally there was no change in the appearance of the right eye, but there was a definite change in the fundus picture. An area of dense retinal edema filled in the whole temporal superior fundus, with gradual decrease towards the adjoining retina. The retinal artery, however, was visible with all its branches; the veins were no more congested; there were no hemorrhages. The disk swelling was unchanged. A temporary spasm of the temporal superior branch of the retinal artery was thought to be the cause of the retinal edema. Visual acuity was unchanged. A large defect was present in the field, surprisingly unnoticed by the patient. It was not thought advisable to give priscoline retrobulbar in the presence of so much orbital congestion. Papaverine 0.06 mg. was given i.v. and repeated every 6 hours with no initial effect.

He was admitted to the hospital. All etiologic examinations were negative including complete blood count, differential count, blood-chemistry, albumen-globulin ratio, blood-sugar, and P.U.N. The sedimentation rate was mildly increased (37); blood pressure varied from 170/100-148/98 mm. Hg. X-ray examination of orbits, skull, and sinus were negative. Neurologic examinations did not show any abnormalities.

In the presence of negative findings on palpation of the orbit and the orbital margins, it was decided to start medical therapy, especially since the area of retinal edema regressed gradually and no further impairment of vision or an increasing field loss took place. He was advised to take Alphadrol 4.5 mg. in divided doses, under strict control of a low salt diet, weight control, and regular checking of his blood pressure. After only a week, the chemosis had disappeared, simultaneously with a decrease of the exophthalmos and the orbital congestion. The doses of Alphadrol were gradually reduced to a maintenance dose of 1.5 mg.; after 6 weeks the protrusion had disappeared. There was no swelling of the disk, but the disk margins were unsharply outlined; the temporal side of the disk showed a mild discoloration, and there was a distinct sheathing along the temporal arteries and veins. Several weeks later small bushels of new formed veins appeared in this section; a sign suggesting that the original embarrassment of the circulation was probably on the venous side. This was easier to explain than a primary upset in the arterial tree. It was assumed that in the presence of partial impaired venous circulation with stasis, the stasis was transmitted to the capillary system. This could have caused decreased oxygen supply, disturbed nutrition, and formation of noxious agents acting on the arterial walls in the stagnant zone as stimuli for the vasoconstriction, the sequelae having been observed, clinically. The patient's vision remained 20/30. The visual field showed some improvement; a large sector-shaped defect in the field remained, apparently causing little discomfort to the patient, when seen in August, 1962. (Figs. 1 and 2.)

Case 2. Mrs. —, a 25 year old secretary, came

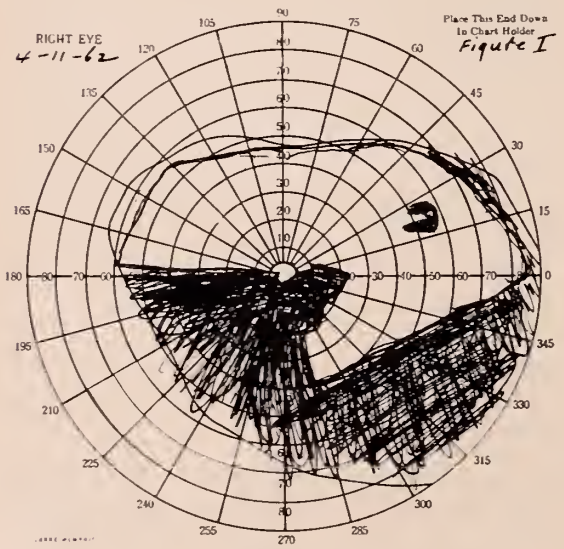


FIG. 1.

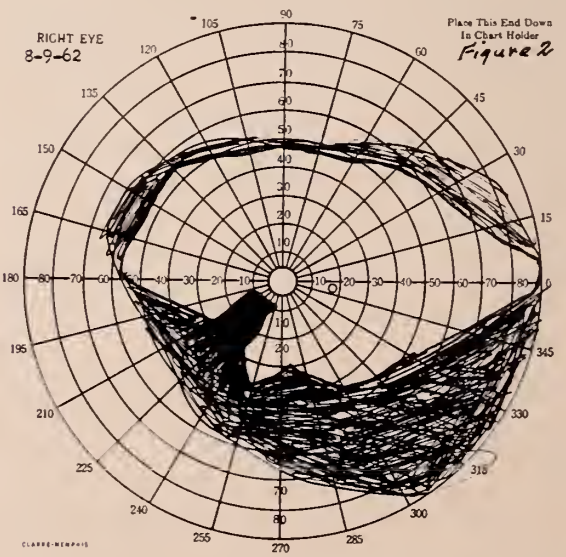


FIG. 2.

to the office on May 26, 1962, because of pain, irritation, and blurred vision in her right eye.

She was seen previously on Sept. 16, 1961 for refraction; at this time superficial hyalin bodies were seen on the nasal border of both disks, and the nasal margins of the disks were described as being blurred. Her corrected vision equalled: od = —2.75 = —.37 x 85 = 20/20; os = —3.00 = —.25 x 90 = 20/20. There was a mild increase in the size of the blind spot. The peripheral fields were normal at this date. When seen in May, 1962, the right eye was proptosed 3 mm. (Exophthalmometer reading Hertel-19/16 = 110.) There was some impairment of elevation. Otherwise the motility was normal. Diplopia was present in all end-positions but not in straight forward direction. The conjunctiva bulbi was injected. No palpebral swelling or chemosis was present. The aqueous was clear and no opacities were seen in the vitreous. The disk showed a swelling of 5D on the temporal superior margin; the entrance of the vessels was not completely clear on the temporal side and a glial haze covered the nasal half. The hyalin bodies, previously seen, seemed to be closer to the vessel entrance than described beforehand. Some small flame shaped hemorrhages were noticed just below the inferior disk margin. No spontaneous venous pulsation was visible, but could be aroused by only minimal pressure on the eye-ball. Palpation was negative. There was considerable orbital resistance. Vision equalled 20/20 with correction. The blind spot had doubled in size as compared to the examination 10 months ago. The peripheral field was normal. No abnormalities were visible in the other eye, except the drusen on the nasal disk margin. During the following days, the disk swelling increased and the patient felt most uncomfortable, having a continuous dull pain. All etiologic examinations including functional studies of the thyroid, x-ray studies, blood-chemistry, blood counts and neurologic consultations were negative. Ten days after the first examination steroid therapy with Alphadrol 4.5 mg. in divided doses was started under the usual precautions and gradually reduced to a maintenance dose of 1.5 mg. All external signs and symptoms of orbital congestion had disappeared by July, 1962; the disk still showed a mild swelling at this date, but no hemorrhages were visible. When seen last on August 24, 1962, the swelling of the nerve-head had disappeared; the disk margins were still veiled and the entrance of the vessels showed a diffuse haze. The blind spot was still larger, as compared with the one in her left eye, and the one outlined at a previous examination.

In spite of apparent success of the symptomatic treatment, the prognosis in idiopathic pseudotumors should always be guarded because the clinical criteria for evaluation are ill defined and pathologic investigations even occasionally ambiguous. It can be caused by a diverse series of clinical conditions, some of them benign, a few locally malignant, some metastatic lesions, and other manifestations of general diseases. Orbital granulomas have been observed about necrotic malignant tumors. They have been seen as an initial manifestation of Hodgkins paragranuloma, malignant lymphoma, lymphosarcoma, and polyarteritis, a.s.o. Even after repeated, occasional complete regression had been observed on local x-ray or medical treatment; or spontaneously the signs and symptoms of the primary disease finally became evident. Recurrences after many years have been observed as well as involvement of the other orbit.

Drusen of the disk have been the subjects of many publications during the last years, because of their potential detrimental effects on the visual fields. In their superficial variety, they represent round translucent bodies, supposedly caused by degenerative changes in excessive congenital immature neuroglia. They are easily seen with the ophthalmoscope. When they are deeply located, they are best seen in indirect illumination. They cause a crowding of the nerve fibers with glial cover at the vessel's entrance. Especially with deep drusen, the clinical differential diagnosis in between papilledema, optic neuritis, and pseudoneuritis is very difficult. Drusen are also seen in connection with retinitis pigmentosa, angioid streaks, and as ocular manifestations of tuberous sclerosis yet rarely in connections with intracranial diseases and chronic papilledema. They are mostly harmless but when deeply located may cause increasing defects in the visual fields, described by Rucker[2] as peripheral contractions below and nasally, enlarged blind spots, and arcuate scotomas with break-through into the periphery. Rucker also emphasized that a loss of central vision cannot be related to hyalin bodies and that in such cases a craniotomy should be done, as meningiomas in the region of the optic nerve, not detectable by x-ray study might possibly cause this abnormality. The same author gave a detailed report on corresponding personal observations. Other authors (Walsh[3]) to the contrary, have observed central scotoma with this aberration.

They, too, have never observed total loss of vision in connection with hyalin bodies of the nerve-head and recognize the rareness of intracranial disease in the presence of drusen, without a distinct pallor of the nerve-head.

Case 3. Mrs. —, a 50 year old insurance agent, was seen in May, 1959, when she wanted a new pair of glasses, because her vision was blurred, both for distance and close. On examination, no abnormalities were seen in the anterior segments, except a mildly sluggish reaction of the pupils to light; the media were clear; both disks appeared blurred, grayish looking, with unsharp margins, an apparent swelling of 1-1½ D. and glial tissue on the entrance of vessels. No drusen could be seen except on indirect illumination. The presence of deep drusen was verified by investigation with the Hruby lens. Fundus pictures were unsatisfactory because the pupils did not dilate sufficiently. Vision equalled: od = +3.25 = +25 x 30 = 20/30; os = +2.75 = +85 x 160 = 20/20. A large sector-shaped field defect was seen in the right eye and an arcuate scotoma in the left. Tension equalled: od = 18.9 os = 20.6 mm. Hg. Because of the difference in tension, a diurnal tracing was done which was negative. A tonogram: Po = 16 (5.5) C = 0.18 (od); Po = 20 (5.5) C = 0.21 (os) was normal and W.P.T. was negative. Neurologic examinations including angiography were negative. The same was true for x-ray and blood studies.

She was not seen again until Dec. 19, 1962,

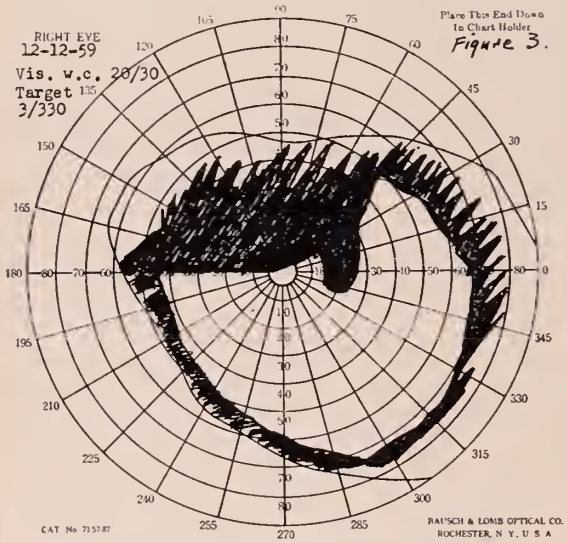


FIG. 3.

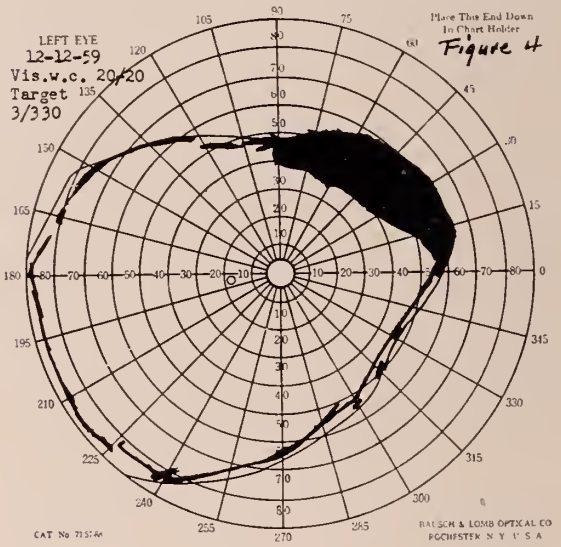


FIG. 4.

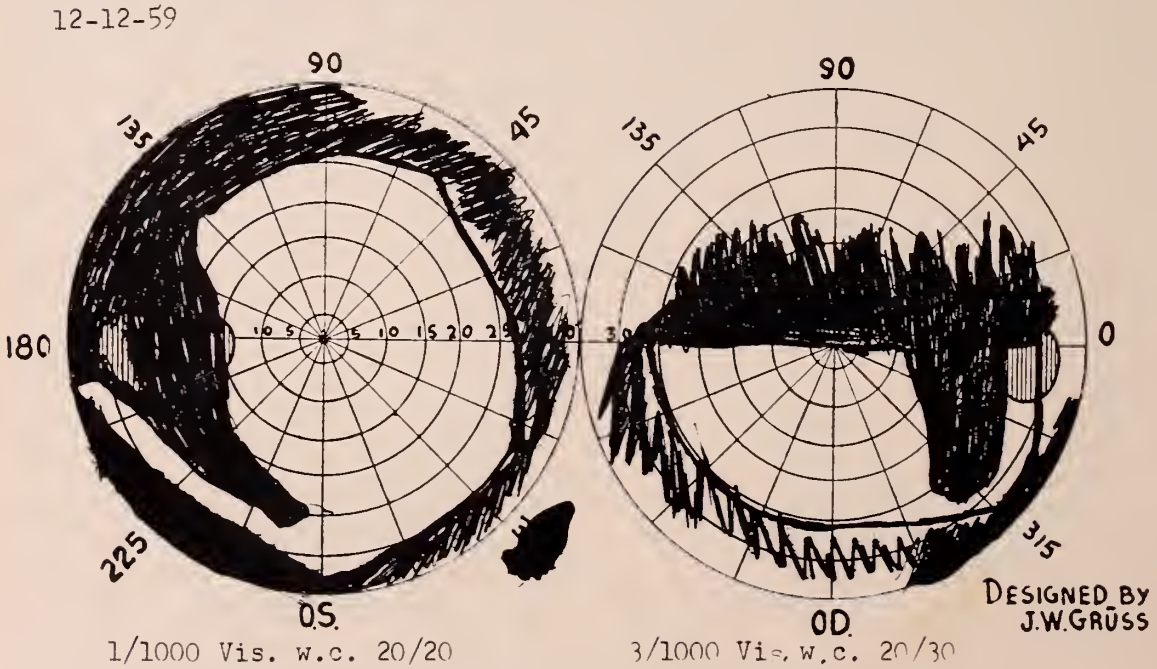


FIG. 5.

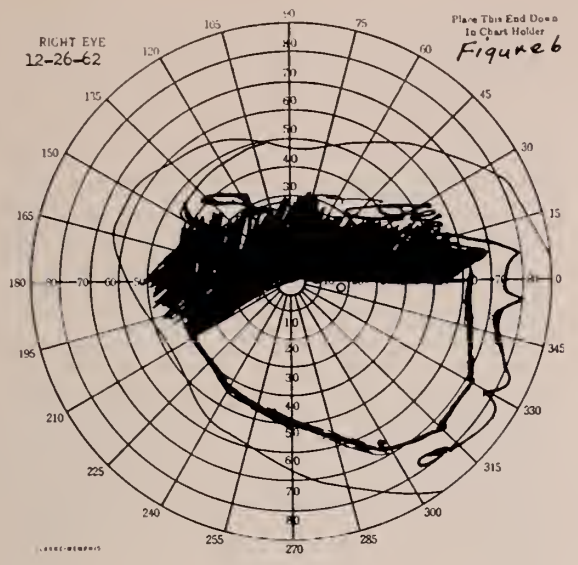


FIG. 6.

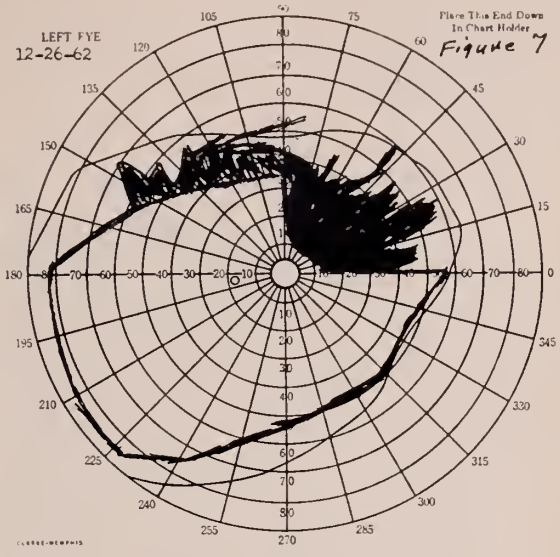


FIG. 7.

when she returned complaining of severe disturbances of vision, especially for distance. There was no actual change in the appearance of the disk and in her visual acuity, but there was a practically complete loss of the upper field with a sharp dividing line which was in the horizontal meridian, not only in the poorer right eye, but also in her left eye. In spite of the fact that hyalin bodies of the disk are obviously rarely associated with intracranial diseases, it was found very difficult to explain the comparatively fast and extended field-loss by the presence of drusen only. Other factors were seriously considered. To date all investigations again were negative. Nevertheless, in the presence of progressive field-loss, an exploratory craniotomy will probably be indicated. (Figs. 3, 4, 5, 6, 7 and 8.)

Summary

(1) The clinical features and pathogenesis of unilateral proptosis and papilledema were discussed. Two corresponding case histories were enclosed.

(2) The problems in evaluation of possible damages to the optic pathways by drusen of the optic disk were recognized and a correlated case-history was presented.

References

1. Reese, A.: Tumors of the Eye. New York. Paul Hoeber & Co.

2. Rucker, C. W.: Mistaken Diagnosis in Some Cases of Meningioma, Am. J. Ophth. 51:15, 1961.

3. Walsh, F. B.: Neuro-ophthalmology.

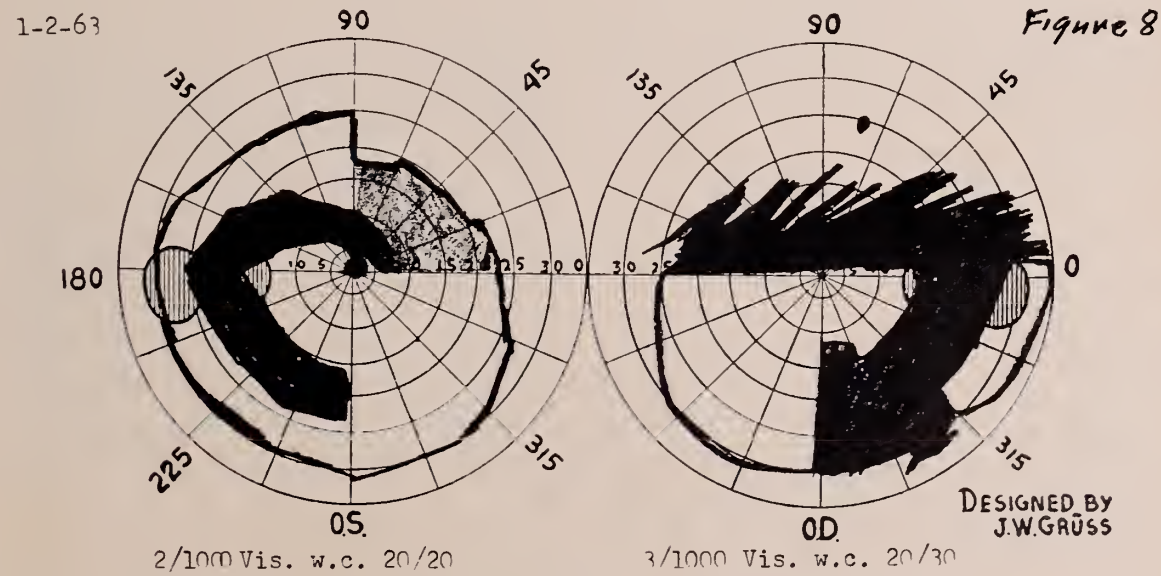


FIG. 8.

CASE REPORT

Pseudohypoparathyroidism with Hypothyroidism

Joseph C. Denniston, M.D.,* and
Choon D. Son, M.D.,* Donelson, Tenn.

Pseudohypoparathyroidism was first described by Albright and associates[1] in 1942 when it was compared to the "Seabright-Bantam Syndrome." In the latter instance it had been noted that the bantam rooster of this breed possessed female feathering despite normal levels of circulating male hormones. Albright's analogy exemplified the failure of response of an end organ to its specific hormone. In the instance of pseudohypoparathyroidism the kidneys fail to respond to parathyroid hormone by the production of phosphorus diuresis.

Patients with pseudohypoparathyroidism present many of the clinical, chemical and physical features observed in true hypoparathyroidism while differing basically in the response to parathyroid hormone.

Diagnosis

Diagnostic Features of Pseudohypoparathyroidism:

(1) Such patients are of short stature (usually less than five feet tall), with round face and stocky or obese build (in over 90% of the cases).

(2) There is generally shortening and widening of the metacarpal and metatarsal bones. The hands are short and stubby. The unequal lengths of the digits are apparently the result of irregular times of epiphysial closure.

(3) Mental retardation occurs in at least 50% of the cases.

(4) Calcifications in soft tissues are noted in the subcutaneous tissue (50% of cases) as well as in the basal ganglion.

(5) Tetany and convulsions occur in 60% of the cases. Other variants include paresthesia of the extremities, severe muscular cramps, laryngospasm and carpopedal spasm.

(6) Neurologic findings consist of positive Chvostek and Trousseaus signs in 50% of the cases.

(7) Laboratory findings include an elevation of serum inorganic phosphorus and a lowering of serum calcium. In a review of the literature the highest and lowest phosphorus concentrations recorded were 13.3 and 2.6 mg. per 100 ml. respectively with a mean average of 5.8 mg.[2] Serum calcium levels varied from 10.2 to 3.8 mg. per 100 ml. with a mean average of 7.6 mg. The lowest serum calcium reported unassociated with tetany or convulsions was 4.2 mg. The alkaline phosphatase has been reported either normal or inconsistently elevated.

(8) Less common diagnostic features include corneal opacities, poor dentition, bowing of the fibula, osteopetrosis, exostosis, genu-valgum, thickening of the calvarium with widening of the diploic space.

Special Diagnostic Tests:

(1) *The Ellsworth-Howard Test*—The urinary excretion of phosphorus is measured following the intravenous injection of parathyroid hormone. The procedure is as follows:

(a) The total urinary phosphorus excretion is determined hourly for 3 consecutive hours.

(b) Parathyroid hormone (Parathormone) 200 mg., is administered intravenously after appropriate skin testing.

(c) The total urinary excretion of phosphorus is measured hourly on three consecutive specimens.

(d) A control is recommended to establish the potency of the hormone.

A normal response is a three to four fold increase in phosphorus excretion following the intravenous use of parathormone. True hypoparathyroid individuals will manifest a six to ten fold increase while the pseudohypoparathyroid patient shows little or no increase.

(2) More recently a newer procedure has been suggested to demonstrate renal tubular responsiveness. Parathormone 200 mg., daily in four divided doses is given intramuscularly over a one week period. In pseudohypoparathyroidism the serum calcium and phosphorus will not be altered significantly by this procedure.

The purpose of our paper is to report a case of pseudohypoparathyroidism associated with hypothyroidism. This is the third documented instance of these two disorders occurring within the same individual. Cohen and Donnell[3] and Turner and Takamura[4] having reported the other two cases.

*From the Pediatric Services, Clover Bottom Hospital and School, Donelson, Tenn.

Case Report

History. A currently 51 year old, white woman was admitted to Clover Bottom Hospital and School on Sept. 29, 1926 at the age of 14 years. (Fig. 1.) The juvenile court advised commitment



FIG. 1.

following abandonment by her parents and the realization that she was mentally retarded. No data was available concerning the family background. The description of the initial examination performed in Sept. 1926 by the institution's physician is indeed a classic and worthy of quoting in its entirety since it most appropriately describes this patient.

"At one glance one could see that the difficulty was that she was too heavy for her feet and legs. She is very short of stature and obese. There is a large padding of adipose tissue over her body especially about the hips, buttocks and breast. The extremities are very short and her legs are bowed. The hands are very short, thick and, in fact, spadelike (Fig. 2). The feet are extremely



FIG. 2.

short and thick. The skin is dry, rough, scaly and cold. The hair of her head is without luster and extremely coarse. The rest of her body is almost devoid of hair and there is marked thinning of the outer third of her eyebrows. The face is broad and moonlike (Fig. 1, 2). The bridge of the nose depressed and her nostrils enlarged. Her voice is rasplike."

Physical examination on April 16, 1963 reveals a short statured (4 ft. 9 in.) obese (148 lbs.) white woman with short stubby hands and feet. A deep simian crease is noted in both palms. (Fig. 3.)



FIG. 3.

Head circumference is 21½ inches. The hair over the scalp is dark, scattered grey and extremely coarse in texture. The facies are full and moon-shaped. There is marked thinning of the outer third of the eyebrows. The pupils are round, regular and react to light and accommodation. Fundiscopic examination reveals bilateral scattered cortical opacities. The patient has only two remaining teeth which are carious. The abdomen is markedly obese, liver, kidney and spleen are not palpable. B.P. was 140/90, P. 62. Extremities reveal both hands and feet to be extremely short and stubby. Genu-valgum is present. Neurologically there is a generalized hyper-reflexia with no localizing signs or symptoms.

Roentgenograms. X-ray examination of the chest reveals the heart and lungs to be within normal limits. In the hands there is bilateral shortening and widening of the metacarpal bones with diffuse areas of soft tissue calcification. (Fig. 4.) X-ray study of the feet revealed marked shortening and widening of the metatarsals with diffuse areas of soft tissue calcification. Skull films reveal thickening of the calvarium over the frontal and parietal areas with widening of the diploic space. IV. pyelogram was reported as normal.

Laboratory studies. Hgb. was 13 Gm.; hematocrit 44%, WBC. count 6,600 with 62% neutrophils and 38% lymphocytes. Serum calcium was 6.8 mg., serum phosphorus 5.8 mg., alkaline phosphatase 3 Bodansky units, serum protein 8 Gm. per 100 ml. Na was 147 and K. 5.2 mEq/L. BUN. was 13.5 mg., and cholesterol 360 mg. per 100 ml. Protein-bound-iodine on two separate occasions was 2.8 and 2.6 mcg. Electroencephalogram revealed marked slowing with no episodal activity or focal signs noted. Renal urea and creatinine clearance tests were within normal limits.



FIG. 4.

Psychologic evaluation. On April 7, 1963 the Standford-Binet score revealed a mental age of 7 years and 2 months, estimated I.Q. of 48. The D-A-M revealed a mental age of 7 years and 3 months, the Vineland Social Maturity Scale gave a social age of 6½ years and a social quotient of 26.

Subsequent course. The clinical findings substantiated by laboratory and x-ray examinations suggested the diagnosis of pseudohypoparathyroidism with hypothyroidism. The Ellsworth-Howard Test was performed to determine her renal response to parathyroid hormone. This procedure, repeated on two separate occasions, resulted in no increase in phosphorus excretion. Parathorome 200 mg. daily in divided doses over a one week period resulted in no alteration of her serum calcium or phosphorus.

Summary

A case of pseudohypoparathyroidism with hypothyroidism is reported in a 51 year old white female retardate. The characteristic physical, laboratory and radiologic findings of pseudohypoparathyroidism with hypothyroidism are present. An Ellsworth-Howard Test resulted in no increase in phosphorus excretion. The serum protein bound iodine was 2.6 and 2.8 micrograms and the serum cholesterol levels 360 and 380 mg. per 100 ml. on two occasions.

It appears that this is the third documented case of pseudohypoparathyroidism associated with hypothyroidism currently reported in the literature.

From this chance finding, we might suggest that other state institutions for the retarded review their cases of pseudohypoparathyroidism to determine the incidence of associated hypothyroidism.

References

1. Albright, F., Burnett, C. H., Smith, P. H. and Parson, W.: Pseudohypoparathyroidism: An Example of "Seabright Bantam Syndrome": Report of 3 Cases, Endocrinology 30:922, 1942.

2. Frame, B. and Carter, S.: Pseudohypoparathyroidism: Clincial Picture and Relation to Convulsive Seizures, Neurology 5:297, 1955.

3. Cohen, M. L. and Donnell, G. N.: Pseudohypoparathyroidism with Hypothyroidism, J. Pediat. 56:369, 1960.

4. Turner and Takamura.

Thalidomide: Sixteen babies in the United States are believed to have been deformed by thalidomide distributed by U.S. firms, the Food and Drug Administration said. A total of 20,771 patients, including 624 pregnant women, received the drug while it was being investigated in the U.S., the FDA reported. *(From AMA News—Apr. 29, 1963.)*

Spontaneous pneumothorax is not a very rare finding. Though "watchful waiting" is often effective treatment, other measures may be needed in greater degrees of pneumothorax.

Management of Spontaneous Pneumothorax*

CAPTAIN DUNCAN A. KILLEN, M.C., USAR, Nashville, Tenn., and
LT. COLONEL LAWRENCE M. JACKSON, M.C., USA, Fort Belvoir, Va.

The optimal methods of management of spontaneous pneumothorax have not been completely delineated. The use of therapeutic measures ranging from bedrest and observation to early thoracotomy has been advocated as the proper treatment of the usual episode of spontaneous pneumothorax.[1-5] An analysis of clinical experiences with the management of a series of consecutive patients who presented with spontaneous pneumothorax was made and the results obtained form the basis for this report.

Materials and Methods

The management and clinical course of all adult patients treated for spontaneous pneumothorax at the DeWitt Army Hospital during the 27 month period ending June 1, 1963 were reviewed. The duration of the pneumothorax prior to admission was estimated on the basis of the clinical history. The extent of the pneumothorax in each patient was assessed from the admission chest roentgenograms. When the average thickness of the extrapulmonary shell of intrapleural air was judged from the postero-anterior chest roentgenogram to be one centimeter or less, the pneumothorax was termed *minimal* in extent. When the pneumothorax was greater than minimal, yet the average thickness of the free intrapleural air on the postero-anterior chest roentgenogram was less than one-half the distance between the rib cage and the hilum of the lung, it was termed *moderate* in extent. Pulmonary collapse of a degree greater than moderate was categorized as *massive* pneumothorax.

The initial management was considered to be observation alone if no other forms of therapy were employed during the first 24 hours after admission to the hospital. Thoracentesis and tube thoracostomy were the other forms of initial therapy employed. The length of the hospital stay of each patient was recorded. In 6 instances the patient underwent elective thoracotomy after completion of therapy for an acute episode of pneumothorax, and the date of thoracotomy was arbitrarily designated as the termination of hospitalization due to the spontaneous pneumothorax per se.

Results

During the period of this study, 42 patients were treated for 54 episodes of spontaneous pneumothorax. Thirty-four patients were male ranging from 17 to 79 years. Thirty-two of the patients were younger than 30 years of age. Only 3 patients had had symptoms of significant pulmonary disease prior to the occurrence of the initial episode of spontaneous pneumothorax. One of these patients gave a twelve year history of asthma, emphysema and chronic bronchitis. Another patient had been treated for pulmonary tuberculosis 8 years prior to admission and since then had had pulmonary fibrosis, emphysema and asthma-like episodes. The third patient, a 79 year old woman, had had senile emphysema, bronchial asthma and recurrent episodes of congestive heart failure for a number of years.

The episode of spontaneous pneumothorax for which the patient was treated was the first proven episode in 40 instances, the second episode in 9 instances, the third episode in 3 instances, and the fourth episode in 2 instances. The pneumothorax was on the right in 31, on the left in 22, and bilateral in one instance. In no patient was there a significant accompanying hemothorax.

In 20 patients a regimen of bedrest and observation constituted the initial therapy.

*From the Surgical Service, DeWitt Army Hospital, Fort Belvoir, Va., and the Veterans Administration Hospital, Nashville, Tenn.

In 19 patients this was successful in accomplishing expansion and stabilization of the lung. One patient required insertion of a thoracostomy tube because of progression of the pneumothorax.

In 16 patients thoracentesis was the initial therapy. Eight patients in this group required no further treatment. In 8 instances the pneumothorax persisted or reappeared following thoracentesis. Two of these patients underwent a second thoracentesis which was in each instance followed by a second recurrence of the pneumothorax. The eight failures of thoracentesis were successfully managed by tube thoracostomy.

In 18 patients tube thoracostomy was the initial therapy employed. Nine other patients required tube thoracostomy following failure of observation alone or thoracentesis. The 3 patients who gave a history of preexisting respiratory disease were in the group of patients subjected to tube thoracostomy. Insertion of a single thoracostomy tube was successful in effecting permanent expansion of the lung in 21 of the 27 patients in whom this operation was done. The secondary intubation was curative in 3 of the 6 patients who needed a second tube thoracostomy. Emergency thoracotomy was resorted to after primary and secondary tube thoracostomies were unsuccessful in controlling the pneumothorax of one patient who had pre-existing pulmonary disease and poor respiratory reserve. Two patients required a tertiary tube thoracostomy before cure of the pneumothorax was obtained.

The relationship of the results obtained by the various forms of initial therapy to the duration of the pneumothorax prior to the institution of therapy is recorded in table 1. The success rate of the less vigorous methods of therapy (observation alone and thoracentesis) could not be definitely correlated with the duration of symptoms.

Table 1

Results of Initial Therapy According to the Duration of Pneumothorax

Duration of Symptoms	Observation Only		Thoracentesis		Thoracostomy	
	Patients	Failures	Patients	Failures	Patients	Failures
< 12 Hr.	6	1	6	4	9	0
12-24 Hr.	9	0	6	2	6	1
> 24 Hr.	5	0	4	2	3	0

The results of the initial therapy as related to the extensiveness of the pneumothorax can be seen in table 2. Observation alone or thoracentesis was successful in each patient in whom the pneumothorax was minimal, but these forms of therapy were successful in only a minority of the patients who had a pneumothorax of moderate or massive extent.

Table 2

Results of Initial Therapy According to the Extent of Pneumothorax

Extent of Pneumothorax	Observation Only		Thoracentesis		Thoracostomy	
	Patients	Failures	Patients	Failures	Patients	Failures
Minimal	16	0	4	0	0	-
Moderate	4	1	12	8	6	1
Massive	0	-	0	-	12	0

The ultimate results obtained by the three methods of management of the acute episodes of spontaneous pneumothorax experienced by the patients of this series are summarized in table 3. With one exception complete expansion and stabilization of the lung were effected by observation alone, thoracentesis, and/or tube thoracostomy. Emergency thoracotomy was necessary in one patient because of inability to control the acute pneumothorax by simpler measures. There were no major complications encountered in the management of these 54 episodes of spontaneous pneumothorax. One patient had a transient pneumonitis and another a serous pleural effusion following removal of the thoracostomy tube. These complications cleared promptly after the institution of routine therapeutic measures.

Table 3

Results of Therapy for 54 Episodes of Spontaneous Pneumothorax

Method of Management	Patients	Failures	Hospital Stay*
Observation only	20	1 (5%)	9.1 (4-24)
Thoracentesis	16	8 (50%)	8.6 (4-15)
Thoracostomy	27†	1 (3.7%)	12.4 (7-24)

*Mean (and range) in days of those patients cured by the Method

†Includes nine failures of observation only and thoracentesis groups

In addition to the patient who required emergency thoracotomy, 6 patients included in this series had elective thoracotomy in

an attempt to prevent a future recurrence of the pneumothorax. In 5 instances repeated ipsilateral pneumothoraces was the indication for thoracotomy. In the sixth patient the presence of a large apical bleb, demonstrated at the time of the initial episode of spontaneous pneumothorax, was the indication for thoracotomy. Subpleural blebs were found and excised by wedge resection in 6 of the 7 patients who had thoracotomy. Parietal pleurectomy was performed in 4 patients and abrasion of the parietal pleura was performed in the remaining 3 patients at the time of the thoracotomy. There were no major operative complications in these 7 patients and no patient has a postoperative episode of ipsilateral spontaneous pneumothorax. One patient has had an episode of spontaneous pneumothorax on the contralateral side during the follow-up period.

Discussion

In many instances spontaneous pneumothorax will resolve without sequelae if no specific measures other than rest and observation are employed. However, spontaneous pneumothorax can rapidly lead to a fatal outcome if not treated promptly and aggressively. Factors which may help to categorize patients as to the optimal initial management are, (1) the cardiorespiratory reserve of the patient prior to the occurrence of the pneumothorax, (2) the extent of the pneumothorax at the time of initial evaluation, and (3) the duration of the pneumothorax prior to observation of the patient.

Tube thoracostomy is the most effective means of immediate expansion and stabilization of the lung during an acute episode of spontaneous pneumothorax and should always be employed if the patient demonstrates respiratory insufficiency prior to, or as a result of the pneumothorax. The presence of an extensive pneumothorax, regardless of the mildness of symptoms, is also an indication for performance of a tube thoracostomy. Theoretically, the longer the duration of the pneumothorax prior to treatment, the more stable the pulmonary collapse can be assumed to be. However, in this series of patients those who had had symptoms for periods greater than 24 hours prior to the initiation of therapy demonstrated a significant failure rate when the more conservative therapeutic measures (observation alone or thoracentesis) were employed. The presence of a minimal pneumothorax, in the absence of symptoms of respiratory embarrassment, seems to be the most reliable indication for observation alone or for thoracentesis.

The tendency for spontaneous pneumothorax to recur has stimulated the investigation of many prophylactic therapeutic maneuvers designed to prevent recurrence of the pneumothorax. The instillation or insufflation of various irritants into the pleural space, in the hope of forming pleural adhesions sufficient to prevent a recurrence of the pneumothorax or collapse of the lung should a subsequent transpleural leak of air occur, have been used; however, the role of elective thoracotomy in the definitive management of spontaneous pneumothorax has assumed greater proportions in recent years.[1,2,6,7,8] The ablation of subpleural blebs and bullae, and surgical maneuvers to produce permanent pleural symphysis seem to be essential elements of such a procedure. Some have advocated that thoracotomy and excision of all demonstrable blebs is a sufficient stimulus to the postoperative formation of pleural adhesions; whereas, others have advocated the addition of mechanical abrasion or scarification of the parietal pleura, application of irritants to the pleura, or removal of the perietal pleura at the time of thoracotomy.[1,2,6-10] Which specific technic of production of pleural symphysis will prove most satisfactory is yet uncertain.

Summary

Analysis of a series of 42 patients who had 54 episodes of spontaneous pneumothorax was made. The therapy employed was ultimately curative in each patient. Tube thoracostomy proved to be the most reliable method of therapy of the acute episode of spontaneous pneumothorax. The trial of less aggressive measures such as observation alone or thoracentesis seem justified if the pneumothorax is minimal in extent and if it does not cause respiratory embarrassment.

Seven of the 42 patients underwent tho-

racotomy, as the definitive therapeutic procedure. There were no major operative complications and there has been no postoperative recurrences of an ipsilateral pneumothorax in any of these 7 patients.

References

1. Baronofsky, I. D., Warden, H. G., Kaufman, J. L., Whatley, J., Hanner, J. M.: Bilateral Therapy for Unilateral Spontaneous Pneumothorax. J. Thorac. Surg. 34:310, 1957.

2. Shefts, L. M., Gilpatrick, C., Swindell, H., and Gabbard, J. G.: Management of Spontaneous Pneumothorax. Dis. Chest 26:273, 1954.

3. Stanek, R. G., Wilson, J. L., and Rogers, W. L.: Spontaneous Pneumothorax: A Review of 71 Cases. Dis. Chest 40:391, 1961.

4. Vail, W. J., Alway, A. E., and England, N. J.: Spontaneous Pneumothorax. Dis. Chest 38:512, 1960.

5. Wolcott, M. W., Shaver, W. A., and Jennings, W. D.: Spontaneous Pneumothorax—Management by Tube Thoracostomy and Suction. Dis. Chest 43:78, 1963.

6. Driscoll, P. J., and Aronstam, E. M.: Experiences in the Management of Recurrent Spontaneous Pneumothorax. J. Thorac. Cardiov. Surg. 42:174, 1961.

7. Gaensler, E. A.: Parietal Pleurectomy for Recurrent Spontaneous Pneumothorax, Surg. Gynec. & Obstet. 102:293, 1956.

8. Thomas, P. A., and Gebauer, P. W.: Pleurectomy for Recurrent Spontaneous Pneumothorax, J. Thorac. Surg. 35:111, 1958.

9. Dominy, D. E., and Campbell, D. C., Jr.: Surgically Correctible Acquired Cystic Disease of the Lung as Seen in Flying Personnel, Dis. Chest 43:240, 1963.

10. Thomas, P. A., and Gebauer, P. W.: Results and Complications of Pleurectomy for Bullous Emphysema and Recurrent Pneumothorax, J. Thorac. & Cardiovasc. Surg. 39:194, 1960.

Quantitative Urine Cultures. J. M. Bradley and P. J. Little. Brit. Med. J. 2:361 (Aug. 10), 1963.

Urine specimens from normal subjects and from patients with various disorders were examined by quantitative and by nonquantitative routine cultures. Comparison of the results obtained with each method indicated that a positive routine culture does not distinguish between contamination and infection, whereas by the quantitative culture this differentiation is possible, even when the white-cell excretion rate is normal. In 15 of 29 patients with asymptomatic bacteriuria revealed by quantitative culture, the white-cell excretion rate was under 400,000/hour; however, nine of them had a history of infection of the renal tract. The findings confirm the authors' belief that only examination by some form of quantitative culture can differentiate between urine contamination and urinary infection.

From the Executive Director

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

Highlights of the Meeting of the Board of Trustees

● The Board of Trustees convened in Nashville on Sunday, October 13th. Principal actions of the Board were as follows:
—Confirmed a mail ballot approving a request made to the Department of Defense to have the fee schedule for the Dependents' Medical Care Program printed and distributed to TMA members. The action was adopted and subsquently approval has been obtained from the Department of Defense to have the schedule distributed to TMA members.
—The Board confirmed the appointment of Dr. Venable A. Murphy, Trimble, to replace Dr. Kelley Avery, Union City, as a member of the Board of Directors of IMPACT (Independent Medicine's Political Action Committee—Tennessee).

President's Report

● Dr. Bland Cannon, President, reported to the Board on a recent conference with the Governor and officials of the Department of Public Welfare. In a meeting with Mr. Roy Nicks, Commissioner of Public Welfare, it was reported that previous negotiations with the Governor had been approved wherein the income limits for aged persons covered under the MAA program had been raised from $1,000 to $1,300 for single persons and from $1,500 to $1,800 for married couples 65 years of age and over. The revision became effective November 1st. As a result, 30,000 additional persons will become eligible under the MAA program which further meets the needs of coverage for aged persons under the Kerr-Mills program. This expansion represents a 30% increase in the number of persons eligible.

TMA Implementation Committee on Kerr-Mills Program Reports

● Dr. K. M. Kressenberg, Chairman of the Board's Committee on Implementation and Expansion of the Kerr-Mills Program, reported on the brochure recently prepared and mailed to all TMA members. This publication presents in brief form the programs of the Departments of Public Health and Public Welfare. It should be of tremendous help to doctors in properly utilizing the program and serving as a guide for information to all persons dealing with the various health agencies and services provided by the State Government. In the discussion, closer liaison and cooperation with the Association's Advisory Committee to the Department of Public Welfare was recommended. The Chairman of the Advisory Committee to the Department of Public Welfare was invited to meet with the Board at its next quarterly meeting in January.

Testimony Prepared For House Ways and Means Committee

● The Board approved testimony prepared for presentation before the House Ways and Means Committee when hearings are held on H.R. 3920 (King-Anderson Bill). Hearings have been set for November 18-27 and the Association's report will be submitted.

Testimony for Inspecting and Licensing Blood Banks and Certain Laboratories Reviewed

● The testimony presented to the Legislative Council by Dr. Merlin Trumbull, Chairman of the Association's Committee on Blood Banks, was reviewed by the Board. The testimony was referred to the Legislative and Public Policy Committee for further action.

Rural Health Conference

● The first Statewide Rural Health Conference, conducted in Knoxville on October 9th and sponsored by the TMA and the

Tennessee Farm Bureau Federation, along with the University of Tennessee Agricultural Extension Service, was reported. One hundred and thirty-four persons attended the meeting representing twenty-two counties in the State. The conference was termed successful and highly praised by officials of the Association and the Farm Bureau Federation.

Request from Hospital Association for TMA Support of Health Careers Program

● The Board discussed in detail a request from the Tennessee Hospital Association for TMA support of a health careers program through an organization formed by the THA. Since additional information will be needed before official action can be taken, the Board moved to refer the matter to the Hospital Committee for study and further consultation with the Hospital Association, and that the Hospital Committee report their recommendations to the Board of Trustees. The President appointed a member of the Hospital Committee to act as a temporary liaison representative to attend meetings of the THA Steering Committee in Health Careers until such time the Board has further information and takes official action.

Financial Statement Approved—Budget Adopted

● The third quarter financial statement was approved by the Board. In addition, the budget for 1964, beginning January 1, was studied by the Board, and adopted.

Recommendation for 1965 Annual Meeting Location

● Since adequate meeting facilities are not available in Nashville, and inasmuch as it has become necessary to reserve meeting space at least two years in advance, the Executive Director requested the Board to consider a location to conduct the 1965 annual meeting. Representatives from Chattanooga invited the meeting to be conducted in that city. Subsequently, a motion was made and duly adopted that the Board of Trustees recommend to the House of Delegates that Chattanooga be the location for the 1965 annual session. To expedite the decision, the Board instructed its Long-Range Planning Committee to draw an amendment to the By-Laws which in the future would charge the Board with the responsibility of selecting the annual meeting site, and to present the amendment to the House for action in April.

Other Actions

● The Board studied a letter from Congressman William Brock, Third District, with a description of a bill that he planned to introduce in Congress concerning medical aid to the elderly. The matter was referred to the Legislative Committee. . . . Appointed Dr. Lawrence Cohen of Memphis as the Association's advisor to the Student American Medical Association, Memphis Chapter, of the University of Tennessee College of Medicine. . . . Approved a resolution and a proclamation signed by the Governor that Community Health Week be observed in Tennessee during the period of October 20-26.

AMA Announces Retirement Plan For Physicians

● The American Medical Association has established a retirement plan for qualified members and their full-time employees. The plan was made possible by the passage of the Keogh Bill (P.L. 87-792) which allows self-employed persons to participate in tax-deferred retirement programs. AMA members interested in joining this plan, or wishing complete details, should write The American Medical Association Members Retirement Plan, 535 North Dearborn Street, Chicago, Illinois, 60610.

Health Insurance Organizations Licensed in Tennessee

● The latest issue of the Health Insurance News reveals that 288 commercial insurance companies, two Blue Cross and Blue Shield plans, and two other "health plans" are licensed to do business in Tennessee. Also, the latest figures reveal that Tennessee is among the group of states with over 67% of its population covered by some form of health insurance at the end of 1962.

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

Sabin Sundays Huge Success

● Well over one million Tennesseans received the first dose of Sabin oral vaccine this Fall through the efforts of 52 county medical societies. Reports from 42 of the 52 counties revealed that 1,105,577 persons received the first dose of the vaccine. With totals from 10 counties still pending, the Shelby County Medical Society began a program Nov. 10 to immunize the more than 625,000 residents of that area. When all the totals are tabulated, the final figure may surpass the two million mark.

The Sabin program has perhaps resulted in the largest single public service newspaper promotion ever undertaken by Tennessee medical societies. The latest count of newspaper articles that appeared in some 72 newspapers across the state showed over 500 individual articles were written concerning the Sabin program prior to the initial dose. Countless radio and television announcements were also made in behalf of the program urging the public to participate.

The news media of Tennessee are due congratulations for extending such excellent support of this worthwhile project.

House Speaker Reports King-Anderson Dead

● House Speaker John McCormack (D., Mass.) reported October 22 that the controversial King-Anderson bill was dead for this session of Congress. The statement came at the President's weekly breakfast conference of Democratic leaders. Representative Wilbur Mills (D., Ark.) made a similar pronouncement when he appeared before the House Rules Committee on September 18.

The declarations haven't altered plans for Committee hearings for this session, however. Chairman Mills has announced hearings will be held from Nov. 18 until Nov. 27. The Tennessee Medical Association will submit testimony to the Committee in opposition.

Mental Health Program Available

● If you were one of the fortunate ones who attended the first Tennessee Congress on Mental Illness and Health, Nov. 13-14 in Nashville, and are interested in seeing the problem further brought to the attention of the public, here's an excellent public service project for your county society.

The AMA's Communications Division, working with the Department of Mental Health, recently completed a series of thirteen half-hour radio programs on mental illness and health. This complete program is available on a set of records and can be programmed either singly or as a series.

Topics of discussion include: Treating Mental Illness; Narcotic Addiction; Alcoholism; The Law and Psychiatry; Juvenile Delinquency; Children; Community Mental Health; Sociopaths; The Family; The Nature of Mental Illness; Mental Retardation; and, Research and the Aged. Each of these are discussions by a panel of prominent physicians.

These programs can be used and sponsored by local county medical societies both on radio and for educational purposes in schools and other interested organizations.

Contact the TMA Public Service Office if this excellent Mental Illness and Health series can be used in your county.

King-Anderson Legislation Film Now Available

● A film entitled "The Gift of Health", which presents the facts on King-Anderson legislation, is now available for use in Tennessee. Produced by the American Medical Association, this 28½ minute color film is an informative presentation of exactly what is involved in H.R. 3920.

The film is designed for showing to lay audiences under the sponsorship of local county medical societies as well as to society members and at auxiliary meetings. A black and white print is also available for use on television.

The film begins with a series of interviews with lay individuals from various sections of the county concerning government sponsored medical care, and specific questions are answered about H.R. 3920, now pending in Washington.

Anyone desiring to secure this film should contact the Public Service Office of TMA. There is no charge for use.

40 Physicians Support K-A

● A group of 40 physicians, including two Tennesseans, have formed The Physicians Committee for Health Care for the Aged Through Social Security, headquarters in Washington, D. C.

This group, composed mostly of physicians who are associated with hospitals, clinics, and health care plans, have published a pamphlet entitled "Why Physicians Support Hospital Insurance for the Aged Through Social Security" and have mailed copies to each member of Congress. After reading the inaccurate and misleading statements, as well as assumptions unsupported by evidence in this pamphlet, it is easy to see why only 40 physicians out of more than 271,000 in this country expressed a willingness to be identified with this committee or to become signatories to a pamphlet of this kind.

It's Not Too Late For AMA-ERF Contribution

● Dr. Edward R. Annis, president of the American Medical Association, has made an appeal to every physician in America to contribute to the AMA-ERF Loan Guarantee Fund.

This program, in just 18 months, has enabled more than 8,000 medical students, interns, and residents to borrow funds to continue their training. Nearly $18 Million in credit has been extended by banks under this program.

Your gift dollar multiplies 12½ times, for each dollar in the Loan Guarantee Fund is backed by 12½ bank dollars. The Fund must be constantly enlarged to keep pace until the time when repayments will equal the demand for new loans.

Why not make your contribution to AMA-ERF today?

Federal Aging Agency Proposed

● A proposal calling for creation of a federal "Administration of Aging" has been introduced in Congress. The plan would include a $70 million grant fund to spur development of new and better community programs for the elderly.

The proposal, first made during the 1961 White House Conference on Aging, has been quietly set aside by the Kennedy Administration. Representative John E. Fogarty (D., R.I.) and Senator Pat McNamarar (D., Mich.) are supporting the measure.

The AMA has told Congress a separate Federal Office on Aging is not needed. Activities in such areas as health or medical care, housing, recreation, adult education and retraining are already being coordinated by the Office of Aging of the Welfare Department, the Department of Health, Education and Welfare, or the President's Council on Aging, the AMA said.

HEW Secretary Anthony Celebreeze called for continuation of the present system of handling aging under the Welfare Administration.

Thought of the Month

● No matter how important you are, you may get the measles . . . Sandburg.

STAFF CONFERENCE

Vanderbilt University Hospital*

Dual Personality

DR. PATRICIA BOLLMAN: The patient for presentation is a 29 year old, white married woman of Jewish faith, admitted to Vanderbilt University Hospital Psychiatric Unit for the first time on March 1, 1963.

Because of the recency and alarming nature of her symptoms it was felt that an exploratory history should be deferred until the patient was in better control. I have obtained little more than a present illness and mental status.

Approximately 2 months prior to admission she began having feelings of inadequacy, worthlessness, "heaviness," dizziness. Accompanying these were decreased appetite with weight loss. All of these became increasingly severe and during the 2 month period she and her 2 children had influenza. Early in her illness she began having the "bad thought," which was almost like an "obsession" that she had to hurt or kill herself in an automobile accident. About one month prior to admission, after leaving a beauty shop she intentionally let go of her steering wheel while going at a slow rate of speed and ran into a brick wall, thus damaging her car but without injuring herself. She was aware of what she was doing and felt guilty about her intentions. A few weeks later, while she was again in a beauty shop, she felt dizzy and peculiar and called her sister-in-law to come for her. She shirked her household duties more and more and felt that she "had to get away from it all."

Two days prior to admission she felt that she had to "do something." On this day she was scheduled to go to an art class (headed by a very dominating woman) and to a beauty shop. She told her husband and her maid of these plans, but she knew she had no intention of doing either. She left home and aimlessly drove around for hours considering suicide. She parked her car behind a grocery store, walked into a wooded area, alternately swallowing and vomiting Coricidin tablets as she walked until she lay down in a small patch of snow and fell asleep. After an unknown time interval she awakened at sundown and walked to the basement of a nearby grocery store where she again fell asleep near a radiator. When she awakened it was dark. Feeling that her home was too far she decided to go to the home of a friend about a mile away as she knew this friend never locked her doors. She entered the friend's home, where a maid only was with the children, went directly to a bedroom and fell asleep. She was found by her friend around midnight; her husband was called and she was seen by her internist. She was unable to talk to her physician freely of her feelings as he was a close friend of her husband. He advised psychiatric care but this advice was rejected by the husband who took the patient home. The police had a difficult time finding her car for she could not recall where she had parked it. The next day her parents were called. Before her parents could arrive from the East the patient convinced her internist of her need for psychiatric help, and she was admitted to the hospital.

Though little effort was made to obtain a past history she quickly told of at least three other suicidal gestures. She took aspirin during her engagement, Coricidin in the early part of her marriage, and last year in April while they were in the throes of building a new house she again took Coricidin. She now feels that each of these were her efforts to "cry out for help."

She readily tells of an unhappy childhood; of being afraid of her father to whom the only important thing was money; of consciously attempting to excel in school and win honors to please her father, but of feeling inadequate and obtaining little inner satisfaction from her achievements. She points out the fact that she identifies her husband with her father; her efforts to please the husband who has for the past 2 years pushed her socially in which she feels most uncomfortable; but she continues in her strivings because she "knows she cannot win against her husband."

At the time of admission she was dressed in slacks and blouse, spoke with much blocking and protested she could not communicate. However, as the interview progressed blocking ceased. She told of her suicidal thinking but was coherent and relevant. Her affect was one of glumness. She smoked and drank coffee constantly during the interview and evidenced some psychomotor retardation. She was alert, oriented, cooperative during the interview, and seemed of good intelligence. She was, however, extremely circumstantial when telling her story and verbalized much shame over her suicidal thinking and actions.

DR. WILLIAM F. ORR: Thank you, Dr. Bollman. Miss McHaney, would you tell us the social history?

MISS MIRIAM McHANEY: The social history information was given by the patient's mother, aged 53, a housewife, and the patient's husband, aged 37.

The patient is the older of two children born two years after her parents' marriage. The sister is five years younger. She was born and reared in a large Eastern city. The family was highly respected. Her father was a well known, financially successful, extensively trained professional man. Nothing pertinent was elicited with regard

*From the Department of Psychiatry, Vanderbilt University, School of Medicine, Nashville, Tenn.

to the mother's pregnancy or delivery. Except for the first two months of life when the patient had severe colic and cried almost constantly, nothing remarkable was reported about her developmental history. The patient's eating difficulties cleared completely after she was put on the bottle; the mother fed the patient on a pediatrician's advice on a rigid, inflexible schedule. She was also advised not to rock or fondle her at any time and she added she always felt guilty when she occasionally did. She did start talking and walking a little later than usual but within normal limits.

While the patient was a wanted and planned for child, according to the mother, she was born into a very tense, strained household. Apparently the parents were never happy in their marriage which both informants attributed solely to the father's personality difficulties. He was described on the one hand as being very attractive personally and intellectually, creative, successful, and an amusing as well as a brilliant conversationalist, with many friends and admirers. (The depth and quality of the father's capacity to relate to others was questioned by both informants.) On the other hand, the father was described as being an extremely rigid person, dominating, opinionated, and a perfectionist in all areas of his life. He was said to be very critical, impatient and demanding of others, particularly of his family whom he frequently verbally abused when they displeased him. If either the mother or the children expressed disagreements with him on any matter he would withdraw for two or three days refusing to speak. At no time did he seem capable of warmth or understanding of the needs of either his wife or children and no matter how they tried to please him, they never seemed to succeed.

The mother was frightened of father and was unable to defend herself or the children against his wrath. It is difficult, if not impossible, for the mother to express negative feelings. She spoke of her own definitely emotionally deprived early life and cannot remember when she has not had the tendency to have depressed feelings and feelings of inferiority and some hopelessness. She accepted the father's behavior in a passive, martyr-like way and clung to her children for comfort and praise discussing unpleasant things with them, keeping them from father. There was much dissention between the parents, often before the children, about the mother's tendency to overprotect them. Both parents were very generous with material things. It might be added that the mother related easily in the interviews and gave the impression of having a capacity for considerable warmth in spite of her own emotional deprivations.

The patient was said to have been a happy, chubby, responsive baby after her first two difficult months. She was also described as a beautiful, outgoing, gay, lovable little girl who early in life seemed to want to please others. She later told her husband she always felt that love from the parents and others was conditional, she had to achieve to gain it.

From the ages of five to seven she suffered added emotional burdens after her sister was born when she was five years old and a 27 year old, emotionally immature, hostile, paternal uncle moved into the home. He apparently resented the patient and was as critical of her as her father and openly showed his preference for the sister. The mother cannot now understand why she and the father allowed this situation to go on for two years. The father finally demanded he leave the home permanently.

No sibling rivalry was ever evident. The sisters became more closely attached as they grew older. The sister was considered brighter than the patient, and did things earlier and more easily, i.e. walking, talking, learning. While the patient always excelled all through school, she had to work much harder than her sister to do so. Both patient and sister had many friends and were considered attractive and popular all through school.

The sister has always been better able to express negative feelings than the patient, and while she has had a need to achieve and excel too, it has been to a lesser degree. She has just finished four years of psychoanalysis and recently married. The husband believes her emotional difficulties consisted mainly of "feelings of deep depression." He mentioned the sister had once told him she "had to work through her feelings about her father and finally

realized he was emotionally ill too." The mother did not seem to understand why the sister needed treatment and could not describe either of her children as ever having been depressed or having swings of mood.

The patient continued to be an attractive, apparently happy, outgoing, popular young lady with both boys and girls. However, the mother at this time of the patient's life began to describe her also as "meek, mild, having feelings of inferiority in relation to others without reason. She never expressed anger or even thought uncomplimentary things about others." She continued to achieve in school and was a leader in many extracurricular activities. In her senior year, however, she made her first suicide attempt taking a large amount of aspirin. The family physician "pumped her stomach, lectured her severely and told mother not to take it seriously." The mother kept this incident from the father and has no idea why patient did it. The patient begged for psychiatric treatment but was refused it.

She had three years in an excellent college where she continued to be a leader. The second year she again attempted suicide by taking an overdose of some kind of sedative which she spontaneously vomited. Her mother again ignored the incident. The patient gave as her reason that the work at college was too much for her.

Nine years ago the patient married husband after a whirlwind courtship of four months. She was aged 20 and he 28 at this time. During the courtship there was another suicidal attempt with an overdose of Coricidin which she vomited and which again no one took seriously. After her marriage she moved to a much smaller Southern city far from her birth place in location as well as in some cultural aspects. In her marriage she seems to have duplicated, to a considerable extent, her earlier life experiences and home atmosphere. Her husband not only at one time practiced the same profession as her father but has very similar personality difficulties. He drives himself and others to strive for perfection. He prides himself on being financially successful and "never letting anyone cheat him out of a nickel." He is rigid, controlling, dominating, demanding, and critical of others, particularly of his wife and children. He is suspicious of others and has the need at present to attempt to control and direct the psychiatrist in his treatment of his wife. Two years ago while they were building an expensive home, he insisted the patient make many decisions, then would cancel them and criticize her. During this time she made her fourth suicidal attempt with Coricidin. The marriage has been considered a happy one by the husband after the first six months. The patient was frigid sexually the first four years but since has enjoyed this aspect of their marriage occasionally.

There are two daughters aged 7 and 5 both said to be well adjusted. The patient had no difficulty with her pregnancies or deliveries except she is Rh negative and for this reason feels it unwise to have more children. Husband does not consider this as being too disappointing to her. She is said to be a good mother and wife.

The patient has made friends since her marriage but her husband believes she feels inferior to them in all areas without reason. She has perhaps one close friend. The husband insists that they have very large, expensive parties which he now believes were too much of a strain for patient. He has also, he says, driven himself in his work both day and night and has not given his wife much emotional support. In the last two years he has developed a serious ileitis which he insists in ignoring but which has caused him and his wife much concern.

The circumstances leading to the patient's present illness have been described by the psychiatrist. While the husband questions his attitudes and behavior as being perhaps somewhat involved in patient's difficulties, he actually attributes her illness to the attitudes and behavior of her parents in the past.

DR. ORR: This is all very interesting and certainly her wandering around, lying down in the snow is symbolic of her fantasy. Dr. Webb, could we have your psychologic report?

DR. WARREN WEBB:

Tests Administered: Rorschach, Thematic Apperception Test, and Kent-Rosanoff Word Association.

Behavior: On the day of testing the patient was alert. She was cooperative with the test procedures, but was too ready to move off tangentially into a discussion of her recent feelings and experiences.

Test Results: The patient's conscious conception of her problem is that she is depressed because of her inability to control a tendency to run away from her responsibilities. Her test responses (which are really samples of her fantasy life and which are, therefore, somewhat unconscious) are consistent with this conception, but place greater emphasis on her emotional immaturity. According to her more child-like fantasies, there is an unconscious expectation that if she works hard and diligently as prescribed by past parental instruction, she will automatically be happy and have the parents proud of her. But her emotional immaturity requires her spending her energies in contrary directions, especially in seeking constant approval from immediate friends and associates, thereby leaving little opportunity for direct striving.

Clues were sought (in the test data) as to the stimulus configuration which serves to precipitate the symptoms for which she was hospitalized. One clue came from the word association test; here, she blocked to the stimulus word "hair" and finally gave the very unique response "cow." Both the stimulus and response could be viewed as having to do with "femaleness." This interpretation would be consistent with her responses to the Rorschach inkblots and to the T.A.T. pictures; there, it became apparent that she ostensibly admires the male's vocational success, but is basically uncomplimentary of the male. One is led, then, to wonder whether the patient is accepting of the female role.

With a high proportion of her responses, the inkblots being of good form quality and congruent with what is frequently seen by other people, a psychotic development is unlikely.

DR. ORR: Thank you, Dr. Webb. Could we have the nurse's report?

MRS. MARILYN RACKARD: The patient arrived on the ward, dressed neatly in slacks and a sport coat. Her husband remained in the admitting office. The patient appeared extremely preoccupied, was tearful and had a bewildered expression.

Her husband arrived on the ward while the patient was being seen by the resident. He was annoyed by this saying he wanted no one to do psychotherapy on his wife except her private physician. Many other things displeased the husband and he verbalized his displeasure quite readily. He threatened that he might not leave his wife here.

The patient too wanted to leave and denied she needed psychiatric help. She stated that she had done something that she had to live with and face the consequences. The husband, however, dominated the conversation.

She joined the patient group only briefly the first few days and was tearful and preoccupied. She complained of a far-a-way feeling, nervousness, unsteadiness, and inability to concentrate. She related these to her medication rather than symptoms of her illness. The second week she was better able to control her crying and became quite active in ward activities, indoors and outdoors. During the second week she was permitted to be off the division with other patients and two days later she was permitted off the ward alone. At this time she contacted a number of people her doctor had advised her not to see.

Daily she had a list of requests, even on her return from her doctor's office.

After two weeks on the ward she went on a leave of absence for the weekend. On return she stated that she had not wanted to return and that she had taken none of her medicines while home. The next morning she called her husband and returned to the ward crying, saying everything was hopeless and that she was "just a vegetable." She went to bed and asked for medicine for a headache. She later said her husband wanted her to change doctors as he could establish no rapport with her doctor. For that day only she was placed back on suicidal precautions, restricted to the ward and allowed no visitors. The husband was allowed to visit two days later and privileges were gradually increased again.

At times she denied she needed psychiatric help, but at times she seemed to realize she did need the help. After the week-

end at home she seemed to have more trust in her doctor and had fewer lists of requests.

She speaks of her children frequently and her face seems to brighten up. The few times she mentions her husband it is by his first name rather than "my husband."

She adjusted to the ward quickly and relates well but superficially. She has been complimentary, friendly, pleasant, and polite throughout hospitalization and tries to please. She has expressed hostility toward no one except herself. On one occasion she was difficult to please at the beauty shop and became rather upset. She never appears bored, as she keeps herself occupied with clay, badminton, bridge, walks, movies, etc. However, she often appears depressed when she is not aware people are looking at her, but smiles quickly when she becomes aware someone is looking.

The first night the patient slept only four hours. Since that time she has slept seven to eight hours nightly and required sedatives only two nights. Her appetite has been good. During the second week only she complained of constipation and medication was given four nights. She has received medication for headaches only four times.

Elavil 25 mg. was given four times daily for 11 days then decreased to three times daily. Eleven days later at the patient's request Elavil was increased to four times daily.

DR. ORR: I feel that we are talking about two quite different people in this patient. (1) The person as she behaves outwardly and (2) the person as she lives in her fantasy. She is outwardly exceptionally cheerful as an attempt to keep herself together, for she is consuming most of her energies in her fantasies. Her acute memory of facts during her fugue-like trance was a screen behind which to hide from herself what is going on in her fantasy. From the data, it seems likely she has strongly sexualized fantasy. We have some clues: (1) having her hair done at the beauty shop. Twice going to beauty shop upset her so much she could not face going a third time (how like a fairy story!), and the strange blocking on the word "hair" in the word association test. (2) Why could she not accept going to art class? Was she avoiding it because in her painting her fantasy might come too close to the surface? Or was it the dominating art teacher? (3) She knew that her fantasy had to do with an accident (an auto accident?). This was so strong she had to have the car to go into her other world. (4) The symbolism of her lying down and going to sleep (like the heroines in fairy stories) is significant and intriguing. First, in the snow, then in the grocery store, then in someone else's bed. She reminds me of a man I saw in treatment a number of years ago who was in serious debt for farm machinery and borrowed money from his father-in-law to pay for it. Later, after he tried to commit suicide under his tractor, he woke up not knowing what he was doing under the tractor. He then took a bus, remembering all about the bus and ride, but not where he was going. Our patient also went to sleep, the last time waking up in someone else's bed—perhaps waiting for the big bear to come in and say "who's sleeping in my bed?"

MISS McHANEY: Actually, the friend to whose home she went hates the patient's husband.

MRS. RACKARD: Her psychiatrist says the patient has been in a power struggle with him and that she does this with the husband, but the husband wins.

MISS McHANEY: The husband calls me frequently and seems to test whether I know everything about how his wife is getting along.

MRS. MARGARET KANE: She is quite fearful of what people will think of her being in a psychiatric unit. She has a friend who has been mentally ill and hospitalized —perhaps this is the friend to whose home she went.

DR. WEBB: I wonder about the connection between her fear of being seen as abnormal, the beauty shop, and physical beauty; her own self-concept. Aren't all of these being equated? Physically she is a warm-appearing, physically attractive, pleasant person.

MRS. RACKARD: On the ward she looks unhappy and preoccupied unless she knows someone is watching her, then she is pleasant appearing.

DR. ORR: These are her two selves. In one we see the fantasy of wanting to act out the conflict by remaining in the hospital; the other wants to go home and be a good girl. Not only does her private psychiatrist have to solve this problem, but also the problem with the controlling, aggressive husband whom he must at this time "out-aggress."

DR. WEBB: She discussed the fact that she could not talk with her internist about her feelings because he is a good friend of her husband. That would be almost like discussing her feelings with her husband.

CHAPLAIN KENNETH MITCHELL: Her husband is unable to give her praise and acceptance.

MRS. RACKARD: He won't even give her any privacy—he makes her tell him all that is going on between her and her doctor.

MRS. KANE: To me he is like a cube of ice.

MISS McHANEY: No, to me he seems to be boiling.

DR. ORR: You are both saying then, that as a husband he is not emotionally appropriate. Her therapist cannot change her husband whom she chose because he is like her father. He must convince both of them (particularly the husband) that she needs help. As she grows she can say to her husband, "No, I can't tell you what I discuss with the psychiatrist." The social worker must help the husband with his feelings about this. In time, the patient must also discuss her hostility. She will see how hostile to her husband her intentions of harming herself were; what would her freezing to death in the snow do to her husband's career?

MISS McHANEY: When she was at home on her leave of absence her husband did not want her to take her medicine saying, he was not going to have a "pill-taking wife," and she did not take the medicine.

DR. ORR: The husband must come to see (through his relationship with the social worker) how sick his wife is and that for a while she, in a way, needs to be a "pill-taking wife." It would be helpful if he could understand that there may be other attempts at suicide as she tries to recognize and reconcile her dichotomized ego. Both parts of her are to a large extent infantile; one being very conforming and "good," in the sense of goody-good, the other "bad," in the sense that uncontrolled impulses are "bad." She will in therapy, as she has done in life, give the control first to one part (usually to her "good" self), then to the other (as in her fugue-like states). The therapist will attempt to help these two parts of her self to get to know one another and to re-integrate them into a totality.

This is the kind of patient from which "dual personalities" are manufactured by psychiatrists. Even in the movie of the "Three Faces of Eve" it was apparent that it was the psychiatrist who made "Mrs. White" and "Mrs. Black." True, the patient presented the raw material just as our patient presents the raw material for such a split, but it was the psychiatrist who brought about the true cleavage. We hope to avoid this here.

Dr. Webb, how many populars were there on the Rorschach?

DR. WEBB: There was a total of 7 populars (she left out the butterfly on card 1 and she missed one of the populars on card 10).

DR. ORR: Good, this would indicate that she has a strongly reality related ego. I'd like to point out now that there is still much we don't know. The actual fantasy material is far from available to us, although I have speculated about it. The patient is occupied with this unknown material much of the time.

CHAPLAIN MITCHELL: There are, of course, methods such as hypoanalysis or narcoanalysis which might bring this fantasy material out. But I take it that these are really undesirable here.

DR. ORR: Quite undesirable. Such methods might be employed by a less experienced therapist. But in this case they would be both risky and inappropriate. Of course, it would involve trying to get to the core too quickly. But besides that, *who* needs this knowledge in therapy? Certainly not the therapist, but the patient. Conscious recognition of the fantasy and attempts to handle it openly are beyond her ability at

this time. When she is ready to deal with her fantasy life openly, she will very likely bring it up herself.

DR. WEBB: She seems to have good resources in addition to her firm hold on reality. She is capable of doing more than she is doing—perhaps this is related to the fact that her husband is cutting her down.

DR. ORR: This is most probably true. He will have a tendency to cut her down more as her dependency (which he encourages) is transferred to her therapist. It will be through this transference that she will be able to recognize, work through, and integrate as a more mature individual her presently dissociated immature selves.

CURTAILMENT OF NEW DRUG RESEARCH

The drug manufacturers have been increasing their research and development expenditures steadily year after year by an average of 15%. The forecast for 1962 had been for the same increase. However, when the year was over, the increase amounted to only six percent. Why was it cut to less than half? Why a sudden slow down in research? The answer is in one word—Government. As PMA President Austin Smith, M.D., commented in a masterpiece of understatement, "Some curtailment of research activities and a more cautious attitude toward investment in new programs has developed in connection with passage of the 1962 drug amendments." Editorial in *Western Pharmacy*, Sept. 1963.

INSIGHT SPOILS "DOUBLE BLIND" TEST

A silly sidelight, but a serious one, is that (FDA) labeling requirements have made some research on patients impossible. The placebo which is used instead of a drug on patients, to make sure that it's the drug and not the patient's attitude that causes changes in his condition, now must be labeled in such a way that he knows when he's getting the medicine and when he's getting the fake. It spoils the experiments.—Editorial in *Journal of the South Carolina Medical Association*, Sept. 1963.

CLINICOPATHOLOGIC CONFERENCE

Methodist Hospital*

Mucoepidermoid Carcinoma of the Bronchus

A 53 year old white maintenance man was seen in this hospital four times over a period of 5 years.

His first admission was for repair of a right indirect inguinal hernia of 13 years duration. He said he had had a "thyroglossal duct cyst" removed when he was about 23, and an appendectomy at 33 years. Two years previously he was treated, apparently successfully, with traction for a "slipped disc." There had been no other illnesses. Following herniorrhaphy he made an uneventful recovery and was discharged on the 5th postoperative day.

Two years later he was hospitalized for observation following an automobile accident. He was discharged on the 4th hospital day with diagnoses of cerebral concussion, contusions of nose and knees, and fracture of a right rib.

Two years later he had evidently developed an indirect inguinal hernia on the left side and he returned to the hospital for operation. He volunteered that in the interval between admissions he had begun to have "frequent prostate gland infections." Positive physical findings were confined to a left indirect inguinal hernia. Herniorrhaphy was performed, and he was discharged on the 5th postoperative day.

About 12 months afterward he entered the hospital again with the complaint of "aching all over." He said that he had been in excellent health until 6 weeks prior to admission, when he had developed a cold with coryza, weakness, and productive cough. These symptoms lasted about 2 weeks; generalized aching persisted and his weakness increased. There was some improvement on antibiotics, but after about 6 days his symptoms returned. Subsequently he would improve temporarily, but there were repeated relapses. Close inquiry revealed that about 2 weeks before admission, he had some pain in the back, but this was fleeting, moving rapidly into other areas.

His T. was 98.6° F., with P. of 100, R. 20, and B.P. 130/70. Positive findings on initial physical examination were evidently limited to hyperemia of the posterior pharyngeal wall with a postnasal drip.

Posteroanterior and lateral chest films were negative. An EKG. was interpreted as showing sinus tachycardia; 3 days later findings were suggestive of early myocardial infarct, but 5 days after the initial tracing it was thought that the changes were related to the electrical position of the heart.

Urinalysis was normal except for occasional leukocytes, 1-2 erythrocytes, and a few finely granular casts per high power field on microscopic examination. A hematocrit was 42% with Hgb. of 13.7 Gm. Total W.B.C. count was 10,640 with 2% bands, 64% P.M.N., 1% P.M.E., 24% lymphocytes, and 9% monocytes. Platelets and erythrocytes appeared normal. A sedimentation rate was 33 mm. per hour.

The diagnostic impression on admission was polyneuritis, probably of viral origin. Initial treatment included thiamine Hcl. and prednisolone 21-phosphate. On the 7th hospital day, apparently with no improvement, his problem was re-evaluated and it seemed that his symptoms were largely related to the lumbodorsal region. On physical examination fixation in this region with moderate scoliosis and marked muscle spasm were described. A film of the dorsal and lumbar spine was interpreted as showing osteoarthritis, moderately advanced, at the lumbosacral junction. He was given muscle relaxants and was put in pelvic traction with no improvement. He appeared instead to be gradually becoming worse. On the 10th hospital day films of the chest and abdomen were negative except for ileus. Hematocrit, hemoglobin and total differential leukocyte counts were very little changed from the time of admission. His temperature had remained normal.

He was seen by an internist who remarked that he had developed abdominal distention and tympany without tenderness. Straight leg-raising produced excruciating pain on both sides of the back, more severe on the left. Patellar reflexes were equal and active, but the left ankle jerk appeared diminished. It was pointed out that a previously normal neurologic examination might have been influenced by the fact that the patient was heavily sedated.

On the 11th hospital day, lumbar puncture was performed. The fluid was clear with a pressure of 30 cm., but it was noted that the patient was very tense and that this was probably not a true reading. Spinal fluid protein was 134 mg. with sugar of 64.5 mg. No cells were present. Another urinalysis showed a trace of sugar with positive tests for acetone and diacetic acid. Findings were otherwise like those on admission. Serum sodium, potassium, calcium, phosphorus, and amylase were all within normal limits. Alkaline phosphatase was 9.4 Bodansky units; acid phosphatase was 0.9 Bodansky units.

By the 17th hospital day he had developed hesitancy and dribbling on urination. Repeat phosphatase determinations revealed no acid, but 14.8 Bodansky units of alkaline phosphatase. A lumbar myelogram demonstrated an extradural mass associated with an osteolytic lesion in the 12th thoracic vertebra; no block was demonstrated.

The patient was seen by a urologist who described a "boggy prostate gland." He felt that the vertebral lesion was not typical of prostatic carcinoma and suggested gastric or renal origin.

*From the Departments of Surgery and Pathology, Methodist Hospital, Memphis, Tenn.

An intravenous pyelogram revealed the ileus previously described. While there was no lesion apparent in the upper urinary tract, the right collecting system was largely obscured. Cystoscopy revealed chronic prostatitis with partial bladder neck obstruction. A right retrograde pyelogram was normal. A retention catheter was placed in the bladder; subsequently he developed fever as high as 103° F., but on Azogantrisin the temperature returned to normal.

He continued to have progressively severe back pain. It was believed that this was due to metastatic carcinoma, but the primary site was still not apparent. There was no visualization of the gallbladder on cholecystography. A barium enema showed no abnormality. An upper gastrointestinal series was scheduled, but this was cancelled. An EKG. again demonstrated sinus tachycardia, but the tracing was otherwise within normal limits.

On the 32nd hospital day, because of great and increasing difficulty in controlling his symptoms, bilateral prefrontal lobotomy was performed through trephine openings. Subsequently, he was somewhat less difficult to manage, but his condition continued to deteriorate. He received a course of N^1, N^1, N^1 triethylene-phosphoramide in 7.5 mg. doses, but the benefit was questionable.

On the 45th hospital day he was thought to be in congestive cardiac failure, with a pulse of 120 to 130 in spite of normal or subnormal temperatures. A portable chest film showed a normal heart, but now for the first time a vague intrapulmonary density was defined on the right side and there was a suggestion of right pleural effusion. He was given digitalis, diuretics, and theophylline. His pulse continued to be elevated, but there was no change in temperature. This status continued for the remainder of his course. On the 60th hospital day another chest film demonstrated considerable fluid in the right pleural cavity with a possible right paratracheal mass. Prominent lung markings were described in the upper lung field on the left. His condition was now terminal, though he remained conscious or semiconscious until the day of death. On the 64th hospital day he expired in respiratory distress.

Discussion

DR. CHISHOLM: This man presented with symptoms sounding like those of a bad cold and his illness was acute. I think that most of his prior history is irrelevant—in other words, I don't think that the hernia repairs and the previous back pain had anything to do with his terminal illness. He may have had several different things. The Massachusetts General Hospital has recently reported 84 cases of malignant spinal tumors, and these are tabulated as follows:

Hodgkin's disease	5	Colon	2
Lung	10	Bladder	1
Prostate gland	7	Ovary	1
Thyroid gland	5	Reticulum cell sarcoma	5
Myeloma	4	Undifferentiated	4
Pancreas	3	Melanoma	1
Cervix	3	Carcinoma, origin ?	8
Kidney	2		

This man had a malignant spinal extradural tumor mass with a lytic lesion in his dorsal spine. Where was the primary disease? It could have been any of those I have shown, or one of several others. In the group from the Massachusetts General Hospital, the most prominent primary site was the lung. I should like, however, to rule out the others. One might consider prostate gland; he had urinary complaints and his case was studied by a urologist. With intravenous pyelograms, the kidney and ureter on the right side were not visualized; he then had a retrograde pyelogram and this did not reveal any evidence of disease. Prostatic cancer could metastasize to the twelfth dorsal vertebra and pyelograms could be quite normal. But this patient had a normal acid phosphatase on two occasions. It is conceivable that he had prostatic carcinoma with vertebral metastasis, but I doubt it.

When he came in for the last time, his complaints had begun with a "cold." He was treated, then he had a relapse. This is a history for lung cancer. According to the protocol, it was difficult to control his pain. The reason for his severe nerve root pain was finally evident on x-ray examination.

He had ileus, which could have been due to retroperitoneal tumor. This could have been lymphoma, but I doubt that we should have found just one metastatic focus. Metastasis could have been from the thyroid gland, since this can give a solitary metastatic bone lesion. It is rare to see this from a primary focus in the gastrointestinal tract.

A total spinal protein of 134 mg.% represents a slight elevation. But this is not much in the presence of an extradural tumor blocking the spinal canal. It is not of much help in a differential diagnosis.

It has been my experience several times that with a great deal of back pain, the primary tumor is in the pancreas. Unfortu-

nately, we do not have a gastrointestinal series to consider. It was scheduled but for some reason it was cancelled.

Some thirty-two days prior to death, the patient had a prefrontal lobotomy for control of pain. Evidently he got fairly good results from this and was more easily managed. Then during the last ten days of his life, although previous x-ray examinations had been reported negative, he developed evidence of disease in the right lung and what was apparently fluid in the right chest.

I believe that this man had a carcinoma of the lung metastasizing to lung and to other sites. As to the cause of death, I think he died of carcinomatosis and that he had metastatic disease to his pericardium and even to his heart. This was probably an undifferentiated type of tumor.

DR. PRIETO: Thank you Dr. Chisholm. Before further discussion, could we see the films?

DR. HOLLIS HALFORD: We first had x-ray studies of the patient's spine and found nothing to explain the pain. Three days later we examined him again; we were considering the possibility of a ruptured viscus because he was having so much pain. We made plain films and decubitus films of the abdomen, and three days later a bone study. The bone study was negative. Then a few days later there was obviously a lesion destroying a portion of the body of T-12. This is very definite, but it had become evident over these few days and is not something which can be diagnosed in retrospect. It had been there of course, but had now made itself apparent. The myelogram shows a pressure defect on the subarachnoid column, pushing it toward the left, at the level of T-12. The lytic lesion is at the same level in the right side of the vertebral body. Barium enema and pyelograms are negative. The right retrograde pyelogram was done because the intravenous one did not show the collecting system clearly.

Very rapidly he developed lung changes. You can see by comparing admission chest films with those made near the terminal event that from an essentially negative chest, he had developed evidence of fluid obscuring the whole right hemithorax. In supine films there appears to be a mass just to the right of the mediastinum. This film appears to have been made partly upright, because you can see fluid all the way around the right lung with a possible right hilar mass.

DR. PRIETO: Thank you, Dr. Halford. At the time of postmortem examination, the body was that of a well nourished individual. It appeared in surprisingly good condition in view of the clinical history. This was a rather frustrating gross examination. In the mucosa of the hard palate was an indurated lesion about 0.8 cm. in diameter and barely raised above the surface epithelium, with a slightly encrusted surface. The gross appearance was hardly promising, and it turned out to be an ordinary squamous papilloma. Around the hilum of the right lung were many enlarged, matted lymph nodes infiltrated by tissue which definitely appeared neoplastic. But the primary site was not readily apparent. There was most extensive involvement of intrathoracic nodes with some involvement of intra-abdominal ones. There were lytic lesions in the right second and eighth ribs, and in the tenth through the twelfth thoracic vertebrae. The only other obvious foci were in both adrenal glands. This lesion looked like a carcinoma and not a lymphoma. Microscopically, the origin became obvious.

Shown diagramatically, is the right main bronchus surrounded by enlarged lymph nodes which do not, however, constrict it. This diagram, with the x-ray film superimposed, demonstrates the shadow as a mass of nodes and not as tumor in the lung. The bronchial surface epithelium was intact, but there was a focus of neoplasm in the subepithelial portion of the mucosa. Tumor had spread around bronchial cartilages and between them, but not into them, and not into the lung. This was a mucosal-submucosal infiltrating lesion, not an ulcerating or exophytic one and the bronchial focus was quite small. Anatomically, it is a mucoepidermoid carcinoma—a mixture of mucinous adenoid and squamous elements. Such a tumor would come from mucous glands and not from surface epithelium, and it would not be expected necessarily to involve the latter. In situations it is a wildly undifferentiated neoplasm; in others it ap-

pears rather innocuous and almost benign.

The site of origin is somewhat unusual. More often tumor arising from the bronchus just proximal to its bifurcation is undifferentiated carcinoma or squamous cell carcinoma. Mucoepidermoid carcinoma generally is of course more often seen around the oral cavity and particularly in salivary glands.

In addition to osseous, lymph node, and adrenal gland metastasis there were minute foci in both lungs, probably arising in lymphatic channels, and there was involvement of anterior and posterior lobes of the pituitary gland.

He had bronchogenic carcinoma with metastasis, but this alone did not kill him. About two weeks before death this man had a "silent" anterior myocardial infarction. Later, probably on the day of death, he had an acute coronary occlusion due to rupture of an atheromatous plaque into the lumen of the anterior descending branch of the left coronary artery. You will recall that around the 45th hospital day he had some evidence of cardiac failure and the large anterior infarct seems to have occurred a little later than this. But there is some microscopic evidence that he might have had a much smaller one earlier, which would correspond to the onset of failure. There is nothing in his history of chest pain, and the question arises as to whether any symptoms were masked by the prefrontal lobotomy, or whether this would have been a "silent" infarction regardless. The initial electrocardiographic findings are also interesting but of course these far antedate any anatomic evidence of infarct and they were thought to have been related to position of the heart.

Other findings were acute prostatitis with bilateral acute pyelonephritis. These were probably terminal developments.

DR. CHISOLM: We are not told whether this man was a smoker. Would you expect this to be pertinent?

DR. PRIETO: I should like to refer that question to Dr. Steffee, who has done experimental work on this relationship. Personally, I should regard it as an adenocarcinoma with squamous metaplasia and I should not expect it to be correlated with smoking. I could find no history that this patient ever smoked. Dr. Steffee, would you be concerned about smokers developing this type of carcinoma?

DR. C. H. STEFFEE: I am not worried at all about carcinoma and smoking.

DR. PRIETO: This is a rare bronchogenic carcinoma. I have seldom seen such an excellent demonstration of tumor arising beneath surface epithelium in a bronchus, leaving the overlying tissue uninvolved. This was to the point that I could not demonstrate a primary focus on gross examination.

Anatomic Diagnoses:

Mucoepidermoid carcinoma of right bronchus with metastasis to vertebrae, ribs, lungs, lymph nodes, adrenal glands, and pituitary gland.

Organizing anterior infarct of heart.

Recent occlusion of coronary artery with recent infarct of heart.

Influenza: Inoculation against influenza of certain "high risk" groups was urged by Public Health Service. It said that while the coming winter is not expected to produce widespread outbreaks, influenza is particularly dangerous to persons suffering chronic ailments such as cardiovascular, pulmonary, renal and metabolic disorders. Inoculation was urged also for pregnant women and persons over 45—particularly those over 65. (*A.M.A. News*, Oct. 14.)

President's Page



DR. CANNON

Active participation in voluntary associations is the only answer to the eroding security of governmental paternalism. Our nation is headed for trouble if the individual citizen forgets his own direct responsibilities.

The free individual, properly exercising his independence, is of paramount importance to our country's future. Each normal individual is endowed with unlimited capacities. There is cause for concern about the person who thinks one man cannot possibly make a difference in the destiny of his way of life; who does not realize the nature of a free society, or what is required to make it work; who fails to understand the multiplying power of single but sovereign units of citizenship; who recognizes no direct relationship between himself and the decisions made by government in his name. In a democracy, the combined attitudes and allegiances of the people determine their destiny.

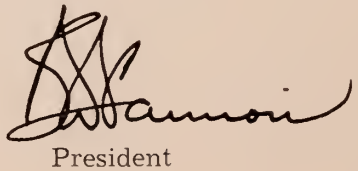
A citizen in our country is endowed with individual freedom. He has a name, a position and influence; he is not a mere cog in a machine or a number fed into a electronic computer. He owns himself. He has the right to his own thoughts and to speak his thoughts. He has the privilege of making mistakes of thought or deed without unreasonable punishment. He has the right to justice, and to make a better life for his family. These are not insured rights. They are earned rights. They are earned day after day by individual citizens doing those things that are necessary to make our system work.

There is a drift away from the basic principles that have built up our great country. Today, one after another, spurious substitutes are being pawned off on us for our basic virtues as free men: government aid for self-reliance, collectivism for individual initiative, and a partially socialized economy for personal responsibility, public subsidies for thrift and efficiency, subservience for pride of citizenship, paternalism for courage, and materialism for religious faith.

We find increasingly a persistent invasion by government of fields traditionally served by voluntary organizations. Space will not permit comprehensive listing of these governmental challenges to voluntary efforts but we could list many.

Therefore, we need a renewed dedication in all our work through voluntary organizations. We must keep them strong, active and effective so that they can meet the competition. We must realize that the future of this country does not rest at either end of Pennsylvania Avenue in Washington, but that it rests along the main streets and country roads of Tennessee and every other state.

Finally, life is not going to get any simpler for us in the medical profession in the years ahead. It will become increasingly involved. As our needs grow greater, our voluntary efforts must grow stronger. Countless tasks remain for us to accomplish through voluntary efforts. They are not easy, but they must be recognized and undertaken. Medicine must face its problems with courage and volunteers are needed for the voluntary way. It is fundamental in a democracy such as ours that citizens do not have to agree, but they must take part. For the medical profession, voluntary efforts must grow to meet the challenges ahead. Our survival depends on it.



President

THE JOURNAL

OF THE
TENNESSEE MEDICAL ASSOCIATION

Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor, B-4211 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK AND POST GRADUATE EDUCATION

R. H. KAMPMEIER, M.D., Chairman
W. POWELL HUTCHERSON, M.D., Chattanooga
ROBERT P. McBURNEY, M.D., Memphis
EUGENE J. SPIOTTA, M.D., Memphis
(Specialty Society Representatives to be named)

NOVEMBER, 1963

EDITORIAL

ALBERT WEINSTEIN—AN APPRECIATION

Often one wishes recognition might be given on this page to the many physicians of Tennessee who have given much to their community, when death has ended a full and outstanding professional life. For a number of reasons this has been impractical, and by precedent acknowledgment has been acorded mainly to those who have contributed to the Tennessee Medical Association in some specific fashion.

Your Editor, with a sense of great loss, acknowledges the professional stature and contributions made by Albert Weinstein whose name has appeared on the mast-head above since 1955. In these years he has written some half-hundred editorials, organized the procurement and maintained the continuity of the clinicopathologic conferences, a feature of the JOURNAL. The members of the Association I am sure join me in this acknowledgment of gratitude for the many hours contributed by Albert Weinstein to the continuation education of Tennessee doctors.

This moment gives me not only the opportunity to express gratitude for his assistance but to add a few additional words of appreciation. Shortly after my arrival in Tennessee I began to count this man among my friends, as we joined our common interests in the teaching of undergraduates in the clinics and on the wards of Vanderbilt University Hospital, and in the burdens of hopefully maintaining high standards of instruction in the hectic war days of an accelerated program and shortage of teaching personnel. To him and to a handful of others I owe a great debt of gratitude for their assistance.

Albert Weinstein provided me with an example I held up on many occasions to the younger practitioner to whom I suggested the writing of an interesting case report or the study of some clinical problem, when the excuse was "too busy" or "not enough time." Never in a quarter of a century of friendship have I ever seen his interest flag in mastering new knowledge and technics, and few years passed in which he did not make another significant contribution to the medical literature. Too busy?—Never! With all this—a practitioner of scientific medicine and excellence as a consultant—Albert Weinstein was a sympathetic but firm physician, adored and respected by those who were his patients.

So may we pause a moment to acknowledge many hours given to the JOURNAL and thus to the Tennessee Medical Association, in addition to the education of many a medical student and house officer, and many a practicing physician.

R. H. K.

★

REHABILITATION OF HEMIPLEGIA

The most recent statistics available from The American Heart Association[1] reveal that almost one million persons died of cardiovascular disease in the United States last year and that one in five of these deaths was due to a cerebral vascular accident. These figures, although impressive, do not tell the entire story. More important is the

number of patients with cerebral vascular accidents who survive. According to the U. S. Public Health Service[2] two million or more people in the United States are handicapped or incapacitated by cerebral vascular disease. With proper rehabilitation it has been estimated that 90% of hemiplegics can be taught to walk again, and 30% can be taught to do gainful work. By implication, only one in ten need accept helplessness.

Although many articles and reviews on the rehabilitation of the hemiplegic have been written, one of the most informative is by Hirschberg and associates[3] from the University of California Medical Center. These authors present a relatively simple program for the management of the hemiplegic. There are several factors which influence the rehabilitation process. Of first concern is the process of improvement which has two mechanisms. One is the spontaneous return of function termed neurologic recovery. The other is the development of the patient's ability to be self-caring and ambulatory despite paralysis, termed functional improvement. Neurologic recovery of voluntary motion cannot be influenced by physical therapy or exercise. Voluntary motion may or may not return, but if it does it returns within the first two months following the stroke. Reflex function frequently leading to spasticity returns much earlier.

The potential for functional improvement of the hemiplegic is excellent. Even if the hemiplegia is complete, he can become self-caring and ambulatory,—self-caring by using only the uninvolved arm, and ambulatory by using both the involved leg, supported by a brace, and the uninvolved leg.

Functional deterioration of the patient with hemiplegia may occur as a result of secondary disabilities caused by disuse and misuse. Disuse leads to atrophy and weakness of the muscles, limitation of range of motion at the joints, and contractures of soft tissues. If prolonged disuse may result in osteoporosis and bed sores. Disuse weakness of the uninvolved side or contractures of the involved lower extremity may prevent walking even if neurologic recovery occurs.

Complications of misuse are a result of injury and strain to paralyzed parts of the body. Too frequent misuse phenomena are the painful shoulder and the back-knee deformity. All secondary disabilities whether they result from disuse or misuse can be prevented.

The goals of rehabilitation must be, therefore, ambulation, self-care, and adjustment to the disability. The program of Hirschberg outlines in detail the technics of reaching these goals. Even when other disabilities modify the responsiveness of the hemiplegic, the program can be followed with certain limitations.

The Middle Tennessee Heart Association has instituted a stroke rehabilitation program to stimulate general interest in the problem of rehabilitating these patients. This organization provides the services of a nurse employed by the Association to instruct families, patients, and professional personnel in simple physiotherapeutic measures. It is hoped that other groups will begin similar programs in other areas of the state and country. Since few physicians have the necessary time or inclination to push through to completion the time consuming programs necessary for the adequate rehabilitation of the hemiplegic, such assistance by personnel of the Heart Association is invaluable. For those who must direct such personnel, or for physicians located in areas where such assistance is not readily available, the outline by Hirschberg and his associates is worthy of serious study.

Enthusiasm for rehabilitation and proper guidance of the hemiplegic will do much toward helping the patient regain his useful place in the community. If rehabilitation is necessary only the physician can plan an appropriate program and outline to the patient, the family and professional personnel the desirable techniques of management.

A. B. S.

References

1. The American Heart, 13:3, (Fall) 1963.

2. Cerebral Vascular Disease and Strokes, U. S. Public Health Service Publication No. 513, U. S.

Department of Health, Education and Welfare.

3. Hirschberg, G. G., Bard, G. and Robertson, K. B.: Technics of Rehabilitation of Hemiplegic Patients, Am. J. Med. 35:536, 1963.

DEATHS

Dr. M. L. Shelby, 78, Clarksville, died October 5th.

Dr. Albert Weinstein, 58, Nashville, died at his home on October 1st, after an extended illness.

Dr. H. Stuart Hodges, 75, Knoxville, died October 6 at St. Mary's Hospital.

Dr. John F. Mohr, 41, Knoxville, died in an Asheville, N. C. hospital from a heart attack suffered.

Dr. C. D. Giles, 63, Gallatin, died in New York City. His death was the result of a heart attack.

Dr. V. D. King, 74, Memphis, died on October 12th.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Roane-Anderson County Medical Society

Dr. Ray H. Hayes, clinical director of the United States Public Health Service Hospital in Lexington, Kentucky, was the guest speaker at the September meeting of the Roane-Anderson County Medical Society. His subject was "Medical Management of the Narcotic Addict at the 'Farm'." (The Lexington facility for treating addicts is known as the "farm.")

Franklin County Medical Society

The Franklin County Medical Society met September 10th at Sewanee Inn and Claramont Restaurant. Dr. John H. L. Heintzelman, director of the Crippled Children Service of the Tennessee State Department of Public Health, addressed the society. He discussed the sources of funds received by the Crippled Children's Service and explained the various services which are available to patients who are referred to the Health Department by the private physicians of the county.

Knoxville Academy of Medicine

The Society's regular monthly meeting was held on October 8th in the Academy of Medicine building. Dr. Abner Glover was moderator for a panel on "What's New with Cancer." Panelists included: Drs. J. W. Campbell, Harry Jenkins, Travis Morgan, Richard Sexton and J. M. Stockman.

Nashville Academy of Medicine and Davidson County Medical Society

A business session of the Academy was held on October 8th at Baptist Hospital Medical Auditorium to consider society activities, projects and policies.

The quarterly meeting of the Academy, combined with hospital staff meetings, was held on November 12th at the Hermitage Hotel. Following the staff meetings and a business session, the scientific program included: "Diabetes and Pregnancy," by Dr. Luke Gillespie, U. S. Public Health Service research physician in obstetrics and gynecology, Boston; "Current Thoughts Concerning Diabetes and Prediabetes," by Dr. Lillian Recant, Associate Professor of Medicine and Preventive Medicine, Washington University School of Medicine, St. Louis; and "Selective Gastric Vagotomy" by Dr. Charles A. Griffith, Clinical Assistant Professor of Surgery, University of Washington, Bellevue, Washington.

Memphis and Shelby County Medical Society

The Memphis and Shelby County Medical Society met in the auditorium of the Institute of Pathology on October 1st to discuss "Physicians' Estate Planning." Guest speakers on the program were: Mr. W. L. Richmond, National Bank of Commerce; Mr. Postell Hebert, Union Planters National Bank; and Mr. W. Hayes Gowen, Jr., First National Bank.

The presentation was followed with the session of the House of Delegates at 8:00 P.M.

NATIONAL NEWS

The Month in Washington

(From the Washington Office, AMA)

The federal government has, in effect,

branded the so-called cancer drug krebiozen as worthless.

Boisfeuillet Jones, special assistant to the secretary of Health, Education and Welfare, said in a letter to Dr. Stevan Durovic, sponsor of the controversial substance, that a "scientifically unimpeachable" Food and Drug Administration analysis of krebiozen "casts strong suspicion" on claims for it as a cancer treatment.

The FDA announced September 7 that it had analyzed a sample of krebiozen powder furnished by Durovic and found it to be creatine, a substance naturally present in the human body and considered worthless in treatment of cancer.

In a September 11 letter to the FDA, Durovic challenged the analysis. He said studies made for him by "two reputable independent laboratories" disagreed with five of the FDA findings.

Replying to the Durovic letter, Jones said the FDA analysis was "scientifically unimpeachable." He also placed full responsibility on Durovic and Dr. Andrew C. Ivy, his chief backer, for any consequences of withdrawing the drug from patients who have taken it.

"We are fully sympathetic with those patients who believe that krebiozen is necessary for the maintenance of health and life," Jones wrote. "You and Dr. Ivy have encouraged their belief; you made krebiozen available to them with claims of benefit. . . . The full moral responsibility for the consequence is yours. . . .

"Tests made by the FDA demonstrate that creatine is only slightly soluble in mineral oil and that the creatine which you provided and called krebiozen is soluble to exactly the same extent."

The federal government has a new $235 million program that will provide financial aid for construction of medical schools and loans to medical students.

★

The Senate in mid-September passed by a vote of 71 to 9 the Administration's medical education bill in the identical form that the House had approved it earlier. President Kennedy promptly signed it into law.

Before approving the bill, the Senate rejected by a 43-to-39 vote an amendment that would have forgiven part of the loan to a student if, after graduation, he practiced in an area where there was a shortage of doctors. The Senate also voted down, 63 to 18, a proposal that would have knocked out loans to students.

The bill authorizes a three-year, $175 million matching grant program for the construction, replacement, or rehabilitation of accredited public or nonprofit teaching facilities for the training of physicians, dentists, pharmacists, optometrists, podiatrists, nurses, or professional public health personnel. A grant cannot exceed 66⅔ percent of the cost of construction for new schools or new facilities at existing schools.

The new law authorizes a loan program, patterned after the National Defense Education Act, for full-time students in schools of medicine, dentistry or osteopathy.

Loans cannot exceed $2,000 for a student in any academic year. Schools will be required to give preference to first-year students in the school year 1963-64. Loans will be repayable over a ten-year period which would begin three years after the student ceases to pursue a fulltime course of study.

The unpaid balance of a loan will bear 3% interest per annum or the going Federal rate for obligations having a 15 year or more maturity, whichever is higher. Loans will be made without security or endorsement, except in the case of a minor where the note would not create a binding obligation.

★

A $175 million nuclear fallout shelter program has been dealt a stunning blow by the House Appropriations Committee.

The committee denied most of the funds sought by the Defense Department for the shelters and brought an expression of concern from Speaker McCormack, who called the program a "Fourth arm of our national defense."

The House had approved a bill authorizing the money for a one year program of federal aid for construction of new shelter spaces in non-profit private and public institutions such as schools and hospitals.

The committee's action denied all of the $175 million sought for new shelter construction, including additional funds for building shelter spaces in federal buildings.

It allowed only $7.8 million to continue locating and marking shelter spaces in existing private and public buildings.

★

The Food and Drug Administration has discovered that its August warning against the use of the birth-control pill Enovid by women over 35 was a mistake.

In releasing the final report on the oral contraceptive by an advisory committee of medical experts appointed to study the relationship between consumption of the drug and the occurrence of certain circulatory disorders, principally thrombophlebitis and pulmonary embolism, the FDA said:

"The preliminary report of the committee released on August 4 suggested that there was a statistically significant increase in risk in women 35 years of age or over who were taking Enovid. Further statistical evaluation by the committee has indicated that a higher rate of fatalities due to thrombo-embolism observed in Enovid users 35 years of age or over is not statistically significant.

"The manufacturer of the drug (G. D. Searle & Co.) is being advised that references in labeling, which FDA requested last month, may be modified to state that the higher rate of fatalities is not statistically significant. The labeling will continue to advise physicians of the principal contra-indications for use of Enovid as a contraceptive, namely; certain cancers, pre-existing liver dysfunction or disease, and a history of thrombophlebitis or pulmonary embolism."

MEDICAL NEWS IN TENNESSEE

Tennessee Valley Medical Assembly

The 11th annual session of the Tennessee Valley Medical Assembly was held in Chattanooga on September 30-October 1 at the Read House. Six hundred and nineteen physicians and surgeons registered for the meeting, as well as 320 doctors' wives, 216 nurses and 47 interns and resident doctors. Speakers and their subjects included:

"The Diagnosis and Surgical Treatment of Diverticulitis of the Colon"—Dr. Harry E. Bacon. Philadelphia, Pa.

"Iron Deficiency Anemias"—Dr. Carl V. Moore, St. Louis, Missouri.

"The Management of Cancer of the Prostate"—J. Hartwell Harrison, Boston, Mass.

"Opportunities and Obligations of a Military Medical Research Program"—Dr. Marion B. Sulzberger, Washington, D. C.

"Hyperparathyroidism"—Dr. B. Marden Black, Rochester, Minn.

"Recent Work on Measles Immunization"—Dr. Joseph Stokes, Jr., Philadelphia, Pa.

"Severe Trauma in Pregnancy and Delivery"—Dr. Isadore Dyer, New Orleans, La.

"Hip Joint Problems from Birth to Old Age"—Dr. J. Vernon Luck, Los Angeles, Calif.

"Can the Presence of Angina Pectoris be Proved"—Dr. E. Gray Dimond, La Jolla, Calif.

"Conceiving Can Be Fun"—Dr. Isadore Dyer, New Orleans, La.

"Surgical Aspects of Obstruction of the Common Bile Duct"—Dr. Kenneth W. Warren, Boston, Mass.

"Studies in Biliary-Pancreatic Disease"—Dr. John H. Mulholland, New York, N. Y.

"Endometriosis"—Dr. Ralph A. Reis, Chicago, Ill.

"Cystic Fibrosis: Clinical Variants and Methods of Diagnosis"—Dr. Harry Shwachman, Boston, Mass.

"The Evaluation of the Patient Suspected of Having Peripheral Vascular Disease"—Dr. Edgar A. Hines, Jr., Oteen, N. C.

"Newer Developments in the Study of Jaundice"—Dr. Leon Schiff, Cincinnati, Ohio

"Intrathoracic Goiter: Diagnosis and Treatment"—Dr. Herbert D. Adams, Boston, Mass.

"Plastic Surgery of Interest to the General Practitioner"—Dr. Neal Owens, New Orleans, La.

Symposium: "Gastro-Intestinal Hemorrhage"—Moderator: Dr. John H. Mulholland; Panelists: Dr. Kenneth W. Warren and Dr. Leon Schiff.

Tennessee Academy of General Practice

The fifteenth annual scientific assembly and congress of delegates of the Tennessee Academy of General Practice was held October 23-25 at the Municipal Auditorium in Nashville. The following scientific program was presented:

"Diagnosis and Therapy of Pediatric Speech Defects"—Bernard Silverstein, Ph.D., Knoxville and Robert McCroskey, Ph.D., Atlanta, Ga.

"Diagnosis and Management of Emotionally Disturbed Children"—Dr. Robert G. Jordan, Jr., Memphis; Dr. David A. St. Martin, Washington, D. C. and Dr. Robert M. Foote, Nashville

"Differential Diagnosis of Chest Pain"—Dr. Edward Dorney, Atlanta, Ga.

"Present Day Treatment of Coronary Heart Disease"—Dr. Charles B. Moore, New Orleans, La.

"Chronic Nontuberculous Pulmonary Disease"—Dr. Leslie N. Gay, Baltimore, Md.; Dr. Joseph K. Bradford, New Orleans, La.

"The Pitfalls of Uterine Currettage"—Dr. Buford Word, Birmingham, Ala.
"Recent Advances in Obstetrics and Gynecology" —Dr. W. Powell Hutcherson, Chattanooga
"Newer and Current Diagnostic Tests"—Dr. Walter L. Shepeard, Augusta, Ga.; Dr. John L. Shapiro, Nashville
"Athletic Injuries"—Dr. R. A. Calandruccio, Memphis; Dr. Fred Allman, Atlanta, Ga.; and Dr. Robert C. Brashear, Knoxville
"Oro-Dental Problems Seen in General Practice" —Dr. Elmore Hill, Nashville; Dr. Charles L. Neeley, Jr., Memphis; and Dr. Louis Rosenfeld, Nashville

Presentations were followed with a question and answer period.

Dr. Thomas W. Johnson of Dyersburg assumed presidency of the Academy for 1963-64 and Dr. Wendell W. Wilson, Dyersburg, was named president-elect. Dr. Tinnin Martin of Memphis was elected vice-president and Dr. John S. Derryberry of Shelbyville, secretary-treasurer.

Annual Meeting of Tennessee Public Health Association

The 24th annual session of the Tennessee Public Health Association was conducted in Nashville, October 2-4. Approximately 750 public health workers, doctors, nurses, and other persons attended the three-day meeting to study possibilities of combatting such public health problems as poor nutrition, mental deficiency, air pollution, pesticides in foods and problems in polio immunization more effectively. Guest speakers included: Governor Frank Clement; Dr. R. H. Hutcheson, Commissioner of Public Health; Dr. W. J. Darby, director of the division of nutrition, Vanderbilt University; Dr. J. C. Denniston, director of Tennessee's mental retardation division; Dr. Randolph Batson, dean of Vanderbilt University School of Medicine; and Miss Mildred Kaufman, nutrition consultant for the U. S. Public Health Service.

Dr. Cecil B. Tucker, state director of preventable diseases, was installed as President of the Association. Miss Golden Williams, public health nurse with the Blount County Health Department, was named president-elect to succeed Dr. Tucker in 1965 and Dr. C. P. McCammon, director of the State Health Department division industrial hygiene was re-elected secretary-treasurer.

Seminar on Retardation

Nationally known pediatricians and authorities on mental health gathered at Clover Bottom Hospital and School in Nashville on October 14th for the Tennessee Department of Mental Health's second annual seminar on retardation to discuss topics ranging from heredity to infectious diseases and prenatal injury as they are related to retardation. Dr. Robert E. Cooke, a member of the President's panel on mental retardation was guest speaker at the annual banquet. His subject was "Present Federal Programs for the Mentally Retarded."

International Medical Symposium

More than 150 physicians and scientists from North and South America, Europe, and Asia attended an international medical symposium in Oak Ridge, October 21-25. The symposium, titled "Dynamic Clinical Studies with Radioisotopes," was the eighth in a series conducted by the Medical Division of Nuclear Studies under the sponsorship of the Atomic Energy Commission.

Community Self-Study of Health Needs to be Conducted in Chattanooga

Chattanooga has been selected as sixth in a proposed total of 20 cities throughout the nation to conduct a community self-study of its health needs under the auspices of the National Commission on Community Health Services. The Commission is a non-profit, incorporated, independently operated organization established to collect and study facts about community health services, needs and problems. It is co-sponsored by the National Health Council and the American Public Health Association, and is financed by the Kellogg Foundation, the McGregor Fund and the U. S. Public Health Service.

Tennessee Nurses Association Annual Meeting

Four-hundred registered nurses attended the 58th annual convention of the Tennessee Nurses Association on October 16-18 in Memphis. Miss Dorothy W. Smith, associate professor of nursing and acting dean of the College of Nursing at Rutgers State University in Newark, N. J., gave the key-

note address at the annual banquet. Her subject was "Challenging the Professional Nurse."

Medical Self-Help Training Program

The Civil Defense Medical Self-Help Training program has been accepted by high schools of all counties throughout the State of Tennessee. This training program is devised to train individuals how to care for themselves in an emergency, in the absence of professional medical assistance, and has been endorsed by TMA's Committee on Disaster Planning.

University of Tennessee College of Medicine

Dr. Arthur P. Richardson, Dean of Emory University School of Medicine, Atlanta, delivered the commencement address to 103 students who graduated from the University of Tennessee Medical Units on September 22nd. The graduates included 56 doctors of medicine and 27 doctors of dental surgery.

★

A major revision of both the admission system and curriculum became effective with the fall term. Instead of admitting 50 students four times a year, the revision calls for admission of two classes of up to 100 students each twice a year in September and March. Eleven-week quarters gave way to terms, the first three running 22 weeks and the last three, 23 weeks. Students will continue to be graduated in three years and three months.

★

Undergraduate medical students scored higher than the national average on a widely recognized test of accomplishment given by the National Board of Medical Examiners. At the national level only 15.9% of the medical students in other universities achieved honor scores of 88 and above, however 29.2% of the UT students were on the honor roll.

★

The 17th annual Earl Henry Memorial Clinic on Problems in Oral Surgery for the General Practitioner was held October 11-12 at the University of Tennessee, Knoxville. The clinician for the meeting was Dr. Lloyd C. Templeton, D.D.S., of the UT Department of Oral Surgery, Memphis.

Vanderbilt University School of Medicine

Some 200 physicians and scientists from many parts of the world met at Vanderbilt University School of Medicine, October 10-11 for an International Symposium on Lipid Transport.

The occasion was used to honor Dr. John B. Youmans, president of United Health Foundations, Inc. and former dean of Vanderbilt University School of Medicine. At the banquet held during the Symposium, a portrait of Dr. Youmans, pioneer in the field of nutrition studies, was presented to the School of Medicine as a gift from many of his friends. The portrait, painted by Mr. Martin Kellogg, will be given a place in the school with the portraits of other former deans.

★

A postgraduate program to review the latest concepts of treatment of cerebral palsy was held at the Vanderbilt School of Medicine on October 23rd. The program was sponsored by the Departments of Orthopedic Surgery and Pediatrics at Vanderbilt and United Cerebral Palsy of Middle Tennessee.

St. Jude Research Hospital—Memphis

The National Institutes of Health have announced an award of $274,000 to St. Jude Research Hospital for completion of laboratories for research relating to diseases of childhood.

★

The Southern Society for Pediatric Research met at St. Jude Hospital on November 8-9 for the organization's fourth annual meeting. Approximately 200 members from 24 medical schools attended the sessions. Medical schools represented included the University of Tennessee Medical units, University of Arkansas Medical Center, Vanderbilt University and the University of Mississippi.

State of Tennessee Department of Public Health

October 15, 1963

SPECIAL LETTER TO ALL PHYSICIANS IN TENNESSEE

Dear Doctor:

There are many counties which have not ap-

pointed a Medical Examiner. The law specifies that each County Medical Society shall recommend a list of two or more names to their County Quarterly Court and the latter shall choose and appoint one as the County Medical Examiner. If your County Society has not submitted this list of names I would strongly urge you to initiate this action promptly. The benefits to your community can be measured in dollars and cents for it is only by a proper use of this System can fair insurance adjustment be made in violent deaths. This System will also provide better law enforcement and better vital records.

I am ready at any time to provide scientific assistance to any County Medical Examiner who shall request such assistance. I cannot urge strongly enough that your County Society assure itself that such an appointment be made as soon as possible.

Sincerely yours,
J. T. Francisco, M.D.
Chief Medical Examiner

PERSONAL NEWS

Dr. William T. Black, Jr., Memphis, was elected vice president of the Central Association of Obstetricians and Gynecologists at a recent meeting in Denver.

Dr. Howard Farrar, Manchester, showed a film and spoke on medical assistance to the aged at a meeting of the citizens advisory committee to the Coffee County Welfare Department.

Dr. Frank Tullis, Memphis, was guest speaker of the Methodist Hospital Auxiliary.

Dr. C. Harold Steffee, Memphis, was elected chairman of the Advisory Council of the American Society of Clinical Pathologists at the annual meeting in Chicago.

Dr. James B. Ely, Knoxville, was the guest speaker at the Cancer Crusade Award dinner at Appalachian Co-op on October 7.

Dr. John M. Wilson, Greeneville, who has been superintendent and medical director of Greene Valley Hospital and School, has been named to direct the Division of Mental Retardation of the Tennessee Department of Mental Health. He will succeed **Dr. J. C. Denniston,** who has resigned.

Dr. Henry Hedden spoke on the Anderson County Sabin Immunization Program at a recent meeting of the Clinton Lions Club.

Dr. Earl Rich has joined the staff of Smith-Chitwood hospital in Lafayette.

Dr. J. Edward Campbell presented a program entitled "The Present Status of Conditions and Diseases Affecting the Eyes" at a recent meeting of the Technical Society of Knoxville.

Dr. T. A. Lincoln, Oak Ridge, attended the 14th International Congress on Occupational Health in Madrid, Spain, October 16-21.

A special plaque was awarded to **Dr. Gilbert J. Levy** by the Memphis-Shelby County Chapter, National Foundation March of Dimes for his service as chairman of the chapter's medical advisory committee.

Dr. Glenn F. Watts and **Dr. A. W. Diddle,** Knoxville, presented papers at the Pan-Pacific Conference in Honolulu.

Dr. William Hardy, Oak Ridge, discussed the film "A Question of Birth Defects" shown at the monthly meeting of District 8 of the Tennessee Nurses Association.

Dr. William S. Stoney, Nashville, has joined **Dr. Robert N. Sadler** in the practice of thoracic, cardiovascular and general surgery.

Dr. E. L. Caudill, Jr., Elizabethton, presented the program at a meeting of the Woman's Auxiliary to the Washington-Carter-Unicoi County Medical Society in October.

Dr. Tom E. Nesbitt, Nashville, discussed medical care for the aged before the 15th annual meeting of the Tennessee Licensed Practical Nurses Association.

Dr. Robert C. Grant, formerly of Asheville, N. C., has become associated with **Dr. R. H. Harvey** in the practice of medicine at Erwin.

Dr. Walter Benedict spoke on "Algerian Medica" at a recent meeting of the Woman's Auxiliary to the Knoxville Academy of Medicine.

Dr. R. H. Kampmeier, Nashville, was a featured panelist at a national conference of state medical journal editors in Chicago.

Dr. H. H. Pride, Knoxville, spoke on heart disease to members of American Legion Post 2 at a recent meeting.

Dr. David S. Carroll, Memphis, was principal speaker at the Tennessee Society of X-Ray Technicians' 25th annual convention.

Dr. James W. Pate, Memphis, has been elected to membership in the Society of Vascular Surgery, an organization limited to 175 surgeons who have been outstanding in the field of surgery of the heart or blood vessels.

Dr. Crampton Harris Helms has opened his office for the practice of general and thoracic surgery in Morristown. On Oct. 18 he presented a paper at a medical seminar of the McGill Graduate Society, Montreal, Canada.

Dr. Joe Bryant has joined the staff of McFarland Hospital in Lebanon.

Dr. Lorin E. Ainger, Memphis, was one of the speakers at the October meeting of the American Academy of Pediatrics in Chicago.

Dr. Bernard M. Sussman, Memphis, recently addressed the Sertoma Club on "Problems in Allergy" and also discussed the purposes of the National Allergy Foundation.

Dr. M. F. Langston, Chattanooga, was named General Practitioner of the Year at the recent meeting of the Tennessee Academy of General Practice in Nashville.

Dr. Muriel von Werssowetz and **Dr. M. M. Young** presided at the Seminar for Nurses on Cerebral Palsy held in Chattanooga on September 13. Other Chattanooga physicians who were guest speakers were: **Drs. Robert T. Miller, Augustus**

McCravey, **Odon von Werssowetz**, and **Howard Ihrig.**

The Medical Group of Memphis has announced the association with it of **Dr. George C. Nichopoulos** for the practice of internal medicine.

Dr. T. D. Baker, Jr., Nashville, has joined **Drs. Frederic E. Cowden** and **Robert Roy** in the practice of internal medicine.

ANNOUNCEMENTS

Calendar of Meetings, 1963-64

State

Nov. 13-14 —First Tennessee Congress for Mental Illness and Health, Hermitage Hotel, Nashville

Nov. 21 —Middle Tennessee Medical Association Fall Meeting, Fort Campbell, Kentucky

Apr. 12-15, 1964—Tennessee Medical Association Annual Meeting, Peabody Hotel, Memphis

Regional

Nov. 18-21 —Southern Medical Association, Municipal Auditorium, New Orleans

Dec. 7-8 —International Symposium on Hemophilia, Sheraton Park Hotel, Washington, D. C.

Dec. 9-10 —American Society of Hematology, Statler Hotel, Washington, D. C.

Dec. 10-12 —Southern Surgical Association, Homestead, Hot Springs, Va.

Jan. 5-8, 1964 —Postgraduate Seminar in Anesthesiology—"The Cardiovascular System," Eden Roc Hotel, Miami, Fla.

Feb. 11-14, 1964—Mid-South Medical Assembly, Peabody Hotel, Memphis

Feb. 12-16 —American College of Cardiology, Roosevelt Hotel, New Orleans

National

Nov. 17-22 —Radiological Society of North America, Palmer House, Chicago

Nov. 18-20 —Aging of the Lung: Perspectives, Tenth Hahnemann Symposium, Hahnemann Medical College and Hospital, Sheraton Hotel, Dallas

Nov. 30-Dec. 1—American College of Chest Physicians, Portland, Oregon

Nov. 30-Dec. 5—American Academy of Dermatology, Palmer House, Chicago

Dec. 1 —National Conference on Medical Aspects of Sports, Portland, Oregon

Dec. 1-3 —Association for Research in Ophthalmology, Iowa City

Dec. 1-4 —American Medical Association Clinical Meeting, Memorial Coliseum, Portland, Oregon

Dec. 2-6 —Postgraduate Course—Diagnosis and Treatment of Diseases of Heart and Lungs, American College of Chest Physicians, Ambassador Hotel, Los Angeles

Dec. 6-7 —Association for Research in Nervous and Mental Diseases, Roosevelt Hotel, New York City

Dec. 6-7 —American Rheumatism Association, Boston

Jan. 18-23, 1964—American Academy of Orthopaedic Surgeons, Palmer House, Chicago

Jan. 22-25 —Neurosurgical Society of America, Wigwam Hotel, Phoenix, Arizona

Southeastern Surgical Congress

The 1964 meeting of the Southeastern Surgical Congress will be held on the S. S. Hanseatic. The cruise will begin March 21, sailing from Fort Everglades (Fort Lauderdale), Florida, returning to the same port on March 28. Stops included will be St. Thomas, San Juan and Nassau. For further information, write to the Secretary-Director, Dr. A. H. Letton, 340 Boulevard, N.E., Atlanta 12, Georgia.

Postgraduate Seminar in Anesthesiology

The first annual Postgraduate Seminar in Anesthesiology will be offered January 5-8, 1964 at Eden Roc Hotel, Miami Beach, Florida. The program entitled "The Cardiovascular System," will consist of five sessions, each moderated by an authority in the field. The participants have been chosen from the fields of internal medicine, surgery, pharmacology and anesthesiology. Minimum enrollment has been established and advance registration is requested. Additional information may be obtained from: Department of Anesthesiology, University of Miami School of Medicine, Jackson Memorial Hospital, Miami 36. All registrations must be received not later than December 6. The course is acceptable for 13 hours of Category I credit by the American Academy of General Practice.

Postgraduate Day in Pediatrics Vanderbilt University School of Medicine

The Department of Pediatrics of Vanderbilt University School of Medicine will conduct a Postgraduate Day on Thursday, December 12, on "Recent Advances in Pediatrics." This review will treat pediatric concepts which have been clarified in the last few years and recent advances in prevention and therapy. Interesting clinical materials on the ward at the time will be presented. Ample opportunities for questions will be offered.

The course is acceptable for Category I credit by the American Academy of General Practice. Tuition is $15.00, which includes the luncheon. For further information address the Division of Continuing Education, Vanderbilt University School of Medicine.

Symposium Announcement

On January 30-31, 1964 a symposium on "Scintiscanning in Clinical Medicine" will be held in Winston-Salem, N. C. sponsored by the Department of Radiology of the Bowman Gray School of Medicine. Subjects to be covered will include the physical, electrical and pharmacologic principles of organ scanning as well as specific discussions of brain, thyroid, parathyroid, heart, lung, liver, spleen, kidney, pancreas and bone scanning. Registration will be limited to 200. For details write to J. L. Quinn, III, M.D., Nuclear Medicine, Bowman Gray School of Medicine, Winston-Salem 7, N. C.

Postgraduate Assembly in San Antonio

The 28th annual session of the International Medical Assembly of Southwest Texas will be held in San Antonio, Texas, at the Granada Hotel, January 30-February 1, 1964. In addition to the scientific program, there will be many social events for the physician and wife. For further information or registration, write to: Dr. William M. Center, President, 202 West French Place, San Antonio, Texas (78212).

Meharry Medical College

Dr. Maurice Lev, Director, Congenital Heart Disease Research and Training Center, of Chicago, will lecture on Dec. 4, at 2:00 P.M. in the Public Health Lecture Hall. This is being sponsored by the Department of Pathology of Meharry Medical College. His topic will be *The Pathology of the Conduction System.*

Medical Fellowships for Football Scholar-Athletes Established

Special fellowships for the National Football Foundation's scholar-athletes who indicate their intention of entering medical school have been established by The Medical Economics Foundation, an organization founded and supported by "Medical Economics Magazine," it was announced jointly yesterday by Chester J. LaRoche, president of the football organization, and William L. Chapman, Jr., publisher of the magazine.

These fellowships, produced from a trust fund of $50,000 donated by the medical foundation, are in addition to the $500 Earl Blaik Fellowships for the scholar-athletes from the eight N.C.A.A. districts of the nation.

The medical scholarship trust is geared to provide $2,500 annually, which will be divided among any of the eight football scholar-athletes who have elected to attend medical school within one year of graduation from college.

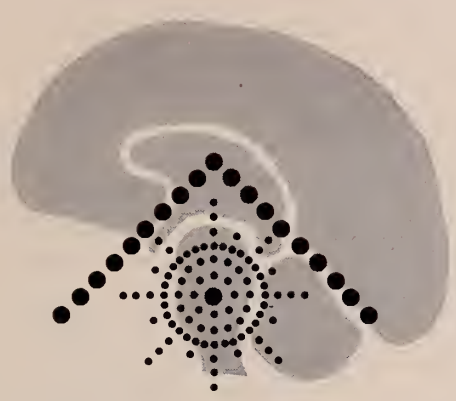
Middle Tennessee Heart Association

"Planning Fat-Controlled Meals for Unrestricted Calories" is the second of two booklets designed to aid the physician in prescribing fat-controlled diets. The first, "Planning Fat-Controlled Meals for 1200 and 1800 Calories," is still available. Both were prepared jointly by the Nutrition Committee of the American Heart Association, the American Dietetic Association, and the Heart Disease Control Program of the U.S.P.H.S.

There is no charge for either booklet, and both are available *upon physician request* from the Middle Tennessee Heart Association.

Immunization with Live Measles Virus Vaccine. H. R. Brodie. Canad. Med. Assn. J. 89:533 (Sept. 14), 1963.

One hundred and fifty children, who had no measurable serum measles antibody, were vaccinated with live measles virus. All showed post-vaccinal serum antibody levels generally considered sufficient to prevent measles. One hundred and thirty-nine (93%) of the infants and children demonstrated one or more symptoms following vaccination. In view of their generally mild and limited nature, and of the protection subsequently afforded, this procedure would seem to be a very real step forward in preventive medicine.



in visceral motor disorders...

EASIER MANAGEMENT

When emotional disturbance is a significant factor in dysfunction of gastrointestinal tone, motility and secretion, Pro-Banthīne with Phenobarbital provides the dual activity that leads to easier management of both the patient and his problem:

Pro-Banthīne (propantheline bromide) to neutralize the effect of excitatory impulses at visceral end organs, *and*

Phenobarbital to moderate emotional incitement centrally.

Pro-Banthīne with Phenobarbital is indicated when a mild to a moderate psychic element is a factor in: Peptic ulcer • Biliary dyskinesia • Pylorospasm • Intestinal hypermotility • Spastic colon • Gastritis • Other dysfunctions of the gastrointestinal tract.

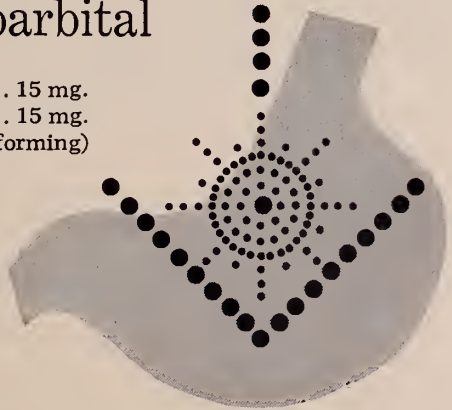
Dosage: One tablet four times a day.

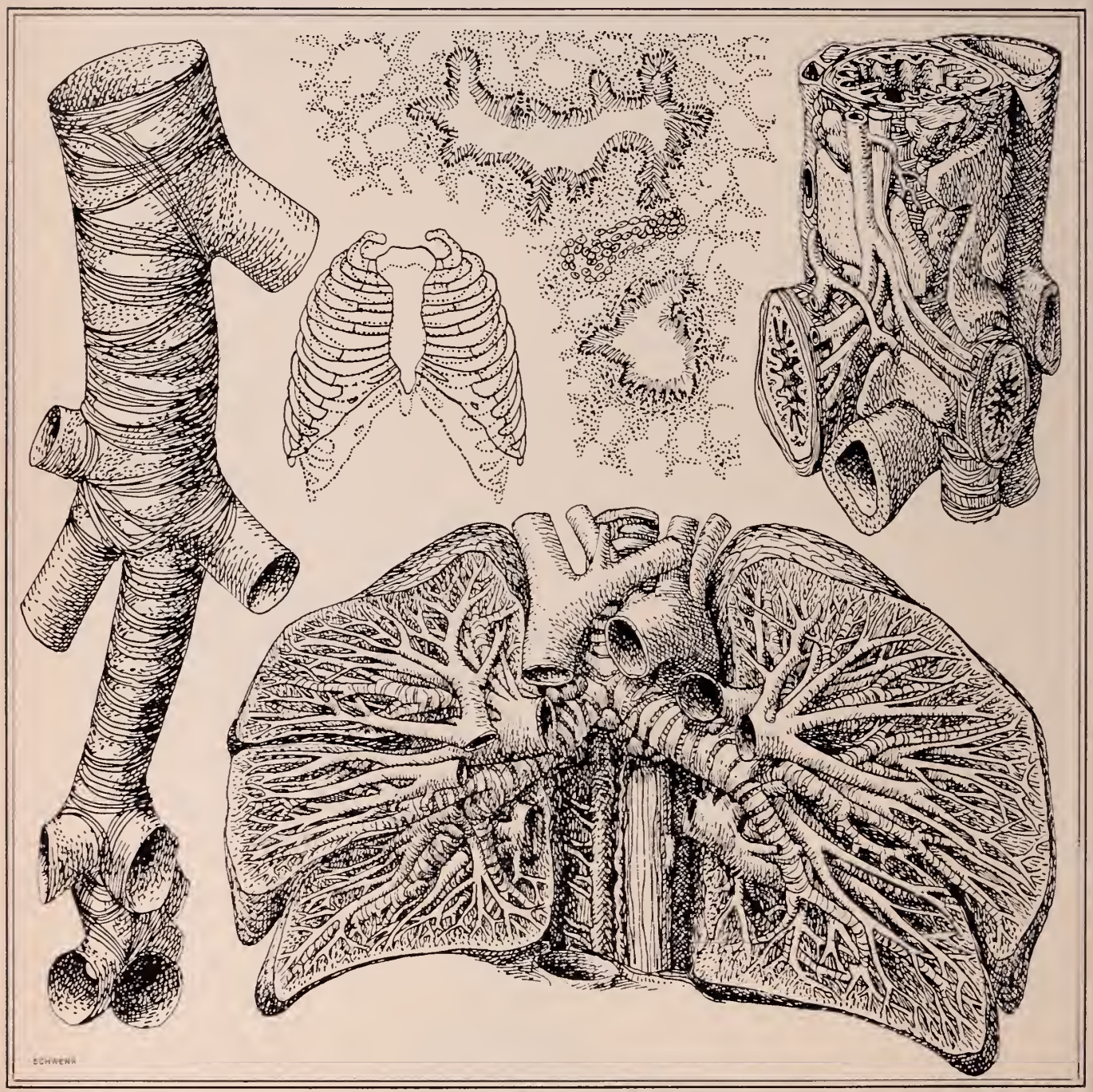
Urinary hesitancy, xerostomia, mydriasis and, theoretically, a curare-like action might occur with Pro-Banthīne (brand of propantheline bromide). It is contraindicated in the presence of glaucoma or severe cardiac disease. The usual precautions with regard to phenobarbital should be taken.

G. D. SEARLE & CO.
CHICAGO 80, ILLINOIS
Research in the Service of Medicine

PRO-BANTHĪNE®
with Phenobarbital

Each tablet contains:
propantheline bromide . . 15 mg.
phenobarbital . . . . . 15 mg.
(Warning: May be habit forming)




SCHWENN

Air Rights

With ARISTOCORT Triamcinolone, many asthmatic patients obtain early gratifying relief of wheezing, dyspnea and spasmodic coughing. And maintenance dosage in many cases can be surprisingly low—*often as little as a single 2 mg. tablet per day.* Yet it provides this symptomatic control—which may enable many patients to continue their customary livelihoods or regular household activities—with only minimal interference with other metabolic functions. In this respect, ARISTOCORT Triamcinolone is distinguished compared with other corticosteroids, old and new. Typical steroid problems of sodium retention and edema, euphoria, or voracious appetite and excessive weight gain rarely occur.

ARISTOCORT Triamcinolone is indicated when anti-inflammatory, anti-allergic action of glucocorticoids is desired. SIDE EFFECTS of glucocorticoids generally: Cushingoid effects, hirsutism, leucopenia, purpura, vertigo, fatigue, increased hyperglycemia, osteoporosis, gastrointestinal hemorrhage, cataracts, growth suppression in children and increased intracranial pressure. Other glucocorticoid effects thought more likely to occur with triamcinolone: reversible weakness of muscles and flushing of face.

PRECAUTIONS: ARISTOCORT Triamcinolone should be used with extreme caution in viral infection, particularly herpes simplex and chicken pox, in tubercular or fungal infection, in active peptic ulcer, acute glomerular nephritis or myasthenia gravis.

FORMULA—Tablets (scored) containing 1 mg., 2 mg. or 4 mg. of triamcinolone. Syrup—2 mg. of triamcinolone diacetate per 5 cc. (5 mg. of triamcinolone diacetate is equivalent to 4 mg. of triamcinolone).

Aristocort®
Triamcinolone

Maximum steroid benefits with minimum steroid penalty

Lederle LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York
162-R3 (OC31-6)

Colds haven't changed— but relief has with NTZ® NASAL SPRAY

NTz Nasal Spray gives on-the-spot relief for stopped-up noses instantly. Recommended by doctors for 10 years, it provides not one, but three powerful ways to fast relief.

In a carefully balanced formula, NTz contains:

Neo-Synephrine® HCl to shrink swollen nasal tissues and provide enough space for breathing

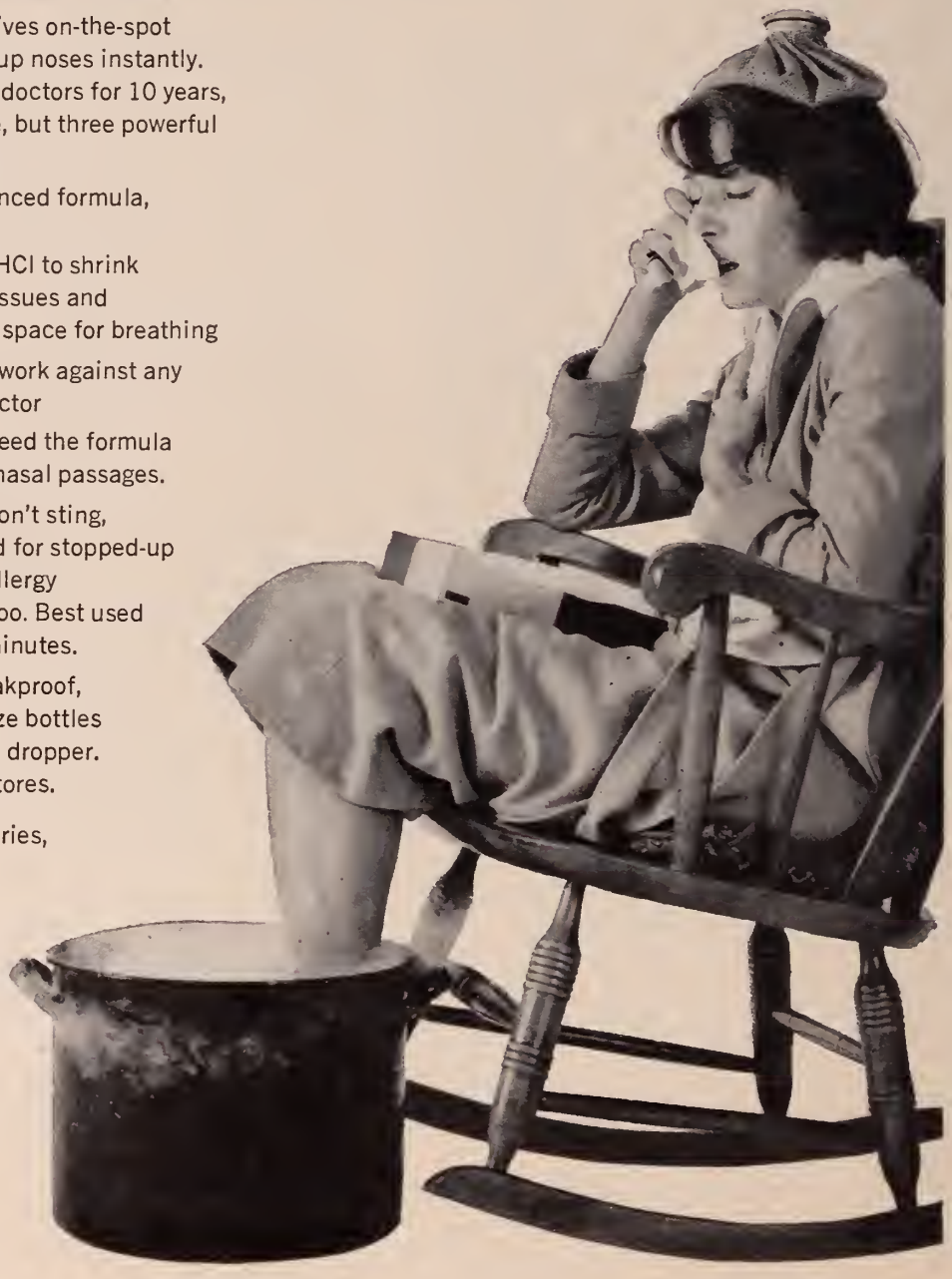
Thenfadil® HCl to work against any local allergic factor

Zephiran® Cl to speed the formula through **all** the nasal passages.

NTz Nasal Spray won't sting, won't irritate. Good for stopped-up noses caused by allergy and for sinusitis, too. Best used **twice** within five minutes.

NTz supplied in leakproof, pocket-size squeeze bottles and in bottles with dropper. Sold only in drugstores.

Winthrop Laboratories, New York 18, N. Y.



Winthrop

NTz, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran (brand of benzalkonium, as chloride, refined), trademarks reg. U. S. Pat. Off.

blood, milk and Maalox®

(magnesium-aluminum hydroxide gel)

Practically standard treatment, now, for bleeding ulcer. Why is Maalox included? Antacid therapy *must* continue long after the wound has healed, and patients started on Maalox tend to stay on Maalox. It tastes good; it's effective and will not cause constipation—three important reasons for Maalox over the long haul. Some physicians, we are told, order Maalox routinely for hospital patients on drugs which could irritate. They feel it reduces the likelihood of gastric discomfort. Supplied: Suspension; Tablets No. 1; Tablets No. 2. (Each Maalox No. 1 Tablet is equivalent to 1 teaspoonful and each Maalox No. 2 Tablet is equivalent to 2 teaspoonfuls of Suspension.)



RORER

WILLIAM H. RORER, INC., FORT WASHINGTON, PA.



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE MARK



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can 75c
Pt. bottle with dispensing can $2.50
Qt. bottle with dispensing can $4.00

Plus post.

White Surgical Supply Co.

SURGICAL SUPPLIES & ACCESSORIES

515 West Church Ave. Knoxville 7, Tennessee

Telephone 3-1186

Murfreesboro—Vacancies

STAFF PHYSICIANS for 1275 bed neuro-psychiatric hospital, including 350 general medical and geriatric. Modern facilities for diagnosis and treatment of mental illness. Salary $11,150 to $18,405 depending on qualifications; fringe benefits; cost of moving to Murfreesboro will be paid by Veterans Administration; visit here for evaluation can be arranged at our expense. Excellent educational opportunities for students in this area. Contact—Director, Veterans Administration Hospital, Murfreesboro, Tennessee.



Smooths out emotional peaks and valleys

'Meprospan'-400 brand of meprobamate contains 400 mg. in sustained-release form. One capsule smooths out the anxious patient's emotional peaks and valleys for 10 to 12 hours — and provides these other advantages:

1. **Especially suitable for maintenance therapy.** Patients whose anxiety has diminished to a mild or moderate level still require a certain amount of tranquilization throughout the day. Sustained-release action is ideally suited to this type of patient.
2. **Simpler dosage schedule.** Since one capsule of 'Meprospan'-400 (meprobamate, sustained release) acts 10 to 12 hours, the patient enjoys a much simpler dosage schedule than with tablets — and is less likely to forget to take the medicine.

Side Effects: Rarely, skin reactions. May increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Massive overdosage may produce coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence in patients with history of drug or alcohol addiction.

Available: *'Meprospan'-400* (meprobamate, sustained release) contains meprobamate 400 mg. *'Meprospan'-200* (meprobamate, sustained release) contains meprobamate 200 mg. Both potencies in bottles of 30. **Usual dosage:** One 400 mg. capsule or two 200 mg. capsules at breakfast; repeat with evening meal.

Meprospan®-400
meprobamate 400 mg.
sustained release

WALLACE LABORATORIES / *Cranbury, N.J.*

CME-9188

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply

& Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS and SYMPTOMS**: Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS**: Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT**: Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN
1104 Sudekum Bldg.
Nashville, Tenn.

SETH W. SIZER
1211 James Bldg.
Chattanooga, Tenn.

THERON M. LEMLY
1309 Poplar Ave.
Memphis, Tenn.

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

WANTED

GENERAL PRACTICE

FAMILY PHYSICIAN — Medical Group, West Virginia College, City of 30,000 near University Medical Center, 90 miles south of Pittsburgh.

Starting salary $15,000-16,000; annual increments; excellent fringe benefits.

For information, call collect
Administrator, Area Code 304-366-0700

ANESTHESIOLOGIST

Certified or Board Eligible

Under 40. Fee-for-service practice in growing group. Stimulating surgery, excellent hospital. University city; East Tennessee. Indicate desired terms and autobiography initial reply. Box X care of TMAJ. Tennessee Medical Association, 112 Louise Ave., Nashville, Tenn.

BRAWNER HOSPITAL, INC.

(Established 1910)

2932 South Atlanta Road, Smyrna, Georgia

FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION

MODERN FACILITIES

Jas. N. Brawner, Jr., M.D.
Medical Director

Aloysius I. Miller, M.D.
Mark A. Gould, M.D.

Phone HEmlock 5-4486

Tennessee Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

E. Dan Smith, II

Underwritten By

Commercial Insurance Company

Newark, New Jersey

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical Supplies & Equipment

1203 Church Street

Nashville, Tennessee

PSYCHIATRIC RESIDENCES for G. P.s:

NIMH residency training in approved three year program. Stipend $11,500 to $12,000. Applicants must have completed four years or more of practice in field of medicine other than psychiatry after an approved internship. Applicants should not be over 40. Address inquiries to Chairman, Department of Psychiatry, Medical College of Virginia, Richmond, Virginia. Include curriculum vitae.

PHYSICIANS MUTUAL INSURANCE COMPANY

(FORMERLY PHYSICIANS CASUALTY ASSOCIATION AND PHYSICIANS HEALTH ASSOCIATION)

115 SOUTH 42ND STREET OMAHA 31, NEBRASKA

Something "New"

For

Doctors

Protect Your Most Valuable Asset

"Your Time"

Our New Sickness and Accident Protection Policy
Pays the Amount You Select up to $500.00 per Month
For Loss of Time Caused by Accident or Sickness

Insuring Physicians & Dentists for 60 years.

PHYSICIANS MUTUAL INSURANCE COMPANY

COUPON

Physicians Mutual Insurance Co.
115 So. 42nd St. Omaha 31, Nebraska
"Offering Protection to Physicians and Dentists
Since 1902"

Name_____ Age_____

Address_____ City_____

Now Available

TO MEMBERS OF THE TENNESSEE MEDICAL ASSOCIATION

Who can qualify for this insurance

$500.00 Per month DISABILITY INCOME PLAN—NON CANCELLABLE

Pays LIFETIME for accident—10 YEARS CERTAIN FOR ILLNESS

DOUBLE BENEFITS FOR ANY THREE MONTH PERIOD OF HOSPITALIZATION

GENERAL PROVISIONS:

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.

Complete aviation coverage on both Monthly Benefit and Principal Sum both private and commercial flying

Monthly benefits payable from the first day of disability

May also be issued with elimination periods if desired

Individually NON CANCELLABLE except for—

1. Non Payment of Premium within the grace period
2. Retired from practice

Guaranteed renewable to age 70. Renewable thereafter at the option of the Company

For further information please contact

Sovereign States Insurance Company

1808 West End Avenue

Post Office Box 767

Nashville, Tennessee

Carl Yeakey, Director of Professional Services

"A Participating Insurance Company Underwriting the Tennessee Plan"

SAINT ALBANS

PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

Telephone: 639-2482

STAFF

James P. King, M.D., Director

William D. Keck, M.D.
Clinical Director
James K. Morrow, M.D.
Silas R. Beatty M.D.
Jack M. Rogers, M.D.

Edward W. Gamble, III, M.D.
Morgan E. Scott, M.D.
Jean M. Glasgow, M.D.
J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.
Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: 325-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Malcolm G. MacAulay, M.D.
Phone: 253-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
Richard D. Kitching, M.D.
Phone: 344-3578

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 1090

Annual Clinical Conference

Chicago Medical Society

March 2, 3, 4 and 5, 1964

Palmer House, Chicago

Lectures *Teaching Demonstrations*

Medical Color Telecasts *Film Lectures*

Instructional Courses

The CHICAGO MEDICAL SOCIETY ANNUAL CLINICAL CONFERENCE should be a MUST on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D. James K. Ward, M.D.

P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala. Phones WOrth 1-1151

PLACEMENT SERVICE

The Placement Service of the Tennessee Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee: Cypress 1-4584.

Locations Wanted

A 30 year old physician, now in residency, would like to establish associate or solo practice in Orthopedics in any Middle or East Tennessee area of 15,000 to 150,000 population. Graduate Tulane School of Medicine. Married. Available January 1964. LW-492

◆

A General Practitioner, 42 years of age, would like assistant, clinical, industrial, or insurance practice in any size community, any area of Tennessee. Now in private practice but would like to re-locate in state offering better educational opportunities. Graduate Oklahoma School of Medicine. Married. Available 30 days after acceptance. LW-493

◆

A 30 year old Urologist, completing four years residency, would like clinical or associate practice in a Middle Tennessee area of 2,000 to 65,000 population. Graduate Tulane University School of Medicine; married; Methodist. Available July 1964. LW-486

◆

A 31 year old Surgeon, graduate University of Rochester, a member American Board of Surgeons, Candidate American College of Surgeons, would like associate or clinical practice in any portion of Tennessee 10,000 to 300,000 population. Married. Protestant. Available July 1964. LW-505

◆

A retired physician, native of northern state, would like to assist in private practice or clinical work, in the field of chronic diseases, arthritis, cancer, and surgery. Graduate University of Chicago. Prefers a small city in Middle Tennessee. Available now. LW-506

◆

A Board certified Radiologist, with 12 years experience, desires to relocate in Tennessee. Graduate University of Virginia School of Medicine. Trained in large eastern teaching center. G.P. background. Desires affiliation with small hospital, any area. Age 55. Health excellent. Hebrew. Available immediately. LW-507

◆

A 33 year old General Surgeon, now in residency, graduate University of Tennessee Medical School, would like affiliation with clinic in any part of Tennessee. Board qualified as of April, 64; married; Baptist. Available April 1, 1964. LW-508

◆

An Orthopedic Surgeon, 31 years of age, graduate of the University of Virginia School of Medicine, now in residency, would like associate practice in any part of Tennessee with 50,000 plus population. Married. Unitarian. Available July 1, 1964. LW-509

◆

A General Surgeon, retiring from military service, would like assistant, associate, industrial practice in any area of Tennessee. Graduate of Duke University School of Medicine; Diplomate National Board Medical Examiners; Diplomate American Board of Surgeons. Age 52; married; protestant. Available January 1964. LW-510

◆

A 29 year old physician, now in residency, would like any type practice in internal medicine, with sub-specialty in endocrinology, in Middle or West Tennessee with population of 25,000 or over. Graduate University of Tennessee College of Medicine; single; Methodist. Available November 1, 1964. LW-511

Physicians Wanted

A Pediatrician is very badly needed in Middle Tennessee town of 8,000. Near large metropolitan city. Office space available near good hospital. Excellent opportunity for young physician. PW-137

◆

A Middle Tennessee town of over 8,000 needs a physician to practice internal medicine. Hospital in town; office space and equipment available. PW-136

◆

A small town in northeastern part of Tennessee in great need of physician. No other physician in area. Medical economic survey report available upon request. Approved for Sears-Roebuck Foundation assistance. PW-177

◆

One, or more, physicians needed in an east Tennessee town (and large rural area), with population of 15,000. Housing, office space and equipment available. Good schools in area, recreational facilities nearby. PW-178

◆

An excellent opportunity for an Ob-Gyn or a General Practitioner to establish practice in east Tennessee city of 25,000. Office next to hospital for lease. Will introduce. Owner moving to Florida for health, when occupant obtained. Deferred lease payments, if desired. PW-183

◆

FOR SALE: Practice, office, and office equipment in Middle Tennessee town of 6,000. Excellent opportunity for young physician. Terms arranged. PW-184

◆

A small upper-east Tennessee town is in need of a physician to replace retired General Practitioner. Approved for Sears-Roebuck Foundation assistance. Survey report available. Housing and office space available. Near industrial area. PW-185

◆

Middle Tennessee town of over 12,000 population would like a physician, as a replacement in local clinic. General practitioner, with surgical experience preferred, but not required. Housing, office space and equipment available. PW-188

◆

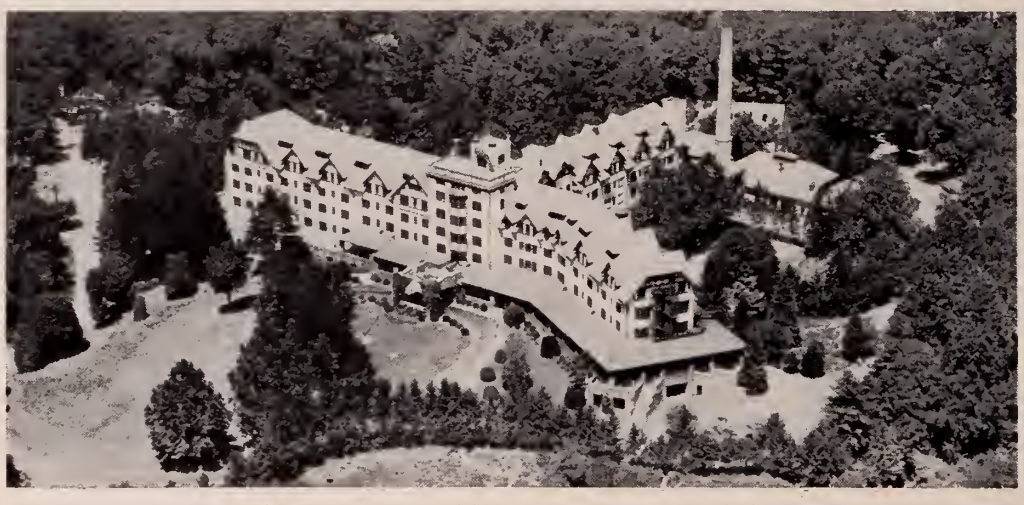
General practitioner needed in East Tennessee town of over 1,000. Hospital located in town. Office space and equipment available. Associate or assistant practice. PW-192

◆

A fully equipped clinic FOR RENT or LEASE to general practitioner. East Tennessee town of over 4,500. Replacement for physician leaving for health reasons. Excellent opportunity. PW-197

APPALACHIAN HALL
Established 1916

Asheville North Carolina



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

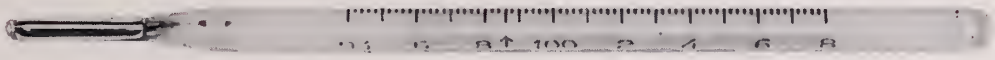
WM. RAY GRIFFIN, JR., M.D. MARK A. GRIFFIN, SR., M.D.
ROBERT A. GRIFFIN, M.D. MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

American Cyanamid Company	XVII, XXI, XXIII, XXXVIII, XXXIX
American Tobacco Co.	XXVII
Ames Co., Inc.	LV
Anesthesiologist Wanted	XLVI
Appalachian Hall	LIV
Blood Bank Foundation	XXII
Brawner Hospital, Inc.	XLVI
Brayten Pharmaceutical Company	XXVI
Burroughs Wellcome & Co.	VI, XXXI
Chatham Pharmaceuticals, Inc.	XXVIII
Chicago Medical Society	LII
City View Sanitarium	XLVIII
Coca-Cola	XLII
Endo Laboratories	XV
Farringer & Company	XXXIV
First Texas Pharmaceuticals	XXX
Geigy Pharmaceuticals	XI, XII, XIII, XIV
Glenbrook Laboratories	XXXV
Guild Opticians	XLVI
Hart Laboratories	XXXIII
Hill Crest Sanitarium	LII
Kay Surgical, Inc.	XXVIII
Lilly, Eli and Co.	I, XXXVI
Mayrand, Inc., Pharmaceuticals	XVI
Murfreeshoro VA Hospital	XLII
Mutual Benefit Life Ins. Co.	XLV
Nashville Surgical Supply Co., Inc.	XLIV
Parke-Davis and Company	II, III
Physicians Mutual Ins. Co.	XLIX
Physicians Products Co., Inc.	VII
Physician Wanted	XLVI
Placement Service	LIII
Psychiatric Residences	XLVIII
Robins, A. H. Co., Inc.	Insert
Roche Laboratories	LVI
Rorer, William H.	XLI
St. Albans	LI
Searle, G. D. & Co.	XXXVII
Smith, Kline & French Lahoratories	X
Smith, Reed, Thompson & Ellis Co.	XLVII
Sovereign States Ins. Co.	L
Tafel Surgical Supply Co., Inc.	XLVIII
Wallace Laboratories	VIII, IX, XVIII, XXII, XXIV, XXV, XXIX, XLIII
White Surgical Supply Co.	XLII
Winthrop Lahoratories	V, XXXII, XL

one answer... three minutes





three answers ...ten seconds

DIP AND READ

combistix®

urine protein • glucose • pH

BASIC COMBINATION TEST FOR BEDSIDE AND OFFICE

... faster than taking temperature. Detects glucosuria (as in diabetes), proteinuria (as in renal disorder), abnormal pH (as in calcinosis or GU infection). For routine screening of all patients. COMBISTIX—*basic as the stethoscope.*

AMES products are available through your regular supplier. 38263

AMES
COMPANY INC
Elkhart • Indiana
Toronto • Canada

anxiety
anxiety
anxiety
anxiety
anxiety
anxiety
anxiety
anxiety
anxiety
anxiety
anxiety reduced to its proper perspective

LIBRIUM®
(chlordiazepoxide HCl)
the successor
to the tranquilizers

ROCHE

In prescribing: Dosage—Adults: Mild to moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. Cautions—Occasional side effects, often dose-related, are drowsiness, ataxia, minor skin rashes, menstrual irregularities, nausea and constipation. Paradoxical reactions may occasionally occur in psychiatric patients. Individual maintenance dosages should be determined. Advise patients against possibly hazardous procedures until maintenance dosage is established. Though compatible with most drugs, use care in combining with other psychotropics, particularly MAO inhibitors or phenothiazines; warn patients of possible combined effects with alcohol. Observe usual precautions in impaired renal or hepatic function, and in long-term treatment. Caution should be exercised in prescribing any therapeutic agent for pregnant patients. Supplied—Capsules, 5 mg, 10 mg and 25 mg, bottles of 50 and 500.

THE JOURNAL OF THE

TENNESSEE MEDICAL ASSOCIATION

TENNESSEE MEDICAL ASSOCIATION
129th Annual Meeting
Peabody Hotel, Memphis, Tennessee
April 12-15, 1964

MID-SOUTH MEDICAL ASSEMBLY
Peabody Hotel, Memphis
February 11-14, 1964

DECEMBER, 1963

Volume 56 **Number 12**

Table of Contents on Page IV
Index to Advertisers on Page XLVIII





Helps to make the epileptic's life more meaningful

Dilantin® Kapseals®
(Diphenylhydantoin sodium)

PARKE-DAVIS

With modern, intelligent therapy, epilepsy has an excellent prognosis. "Well over 90 per cent of the patients can be adequately controlled so that they can lead a normal life and take a useful and respectable position in society."[1]

Diphenylhydantoin sodium is generally regarded as the standard in anticonvulsant medication because of its effectiveness in controlling grand mal and psychomotor seizures.[2-10] It possesses a wide margin of safety, and the incidence of side effects is minimal.[4] With this agent, oversedation is not a problem.[3] Moreover, its use is often accompanied by improvement in the patient's memory, intellectual performance, and emotional stability.[11]

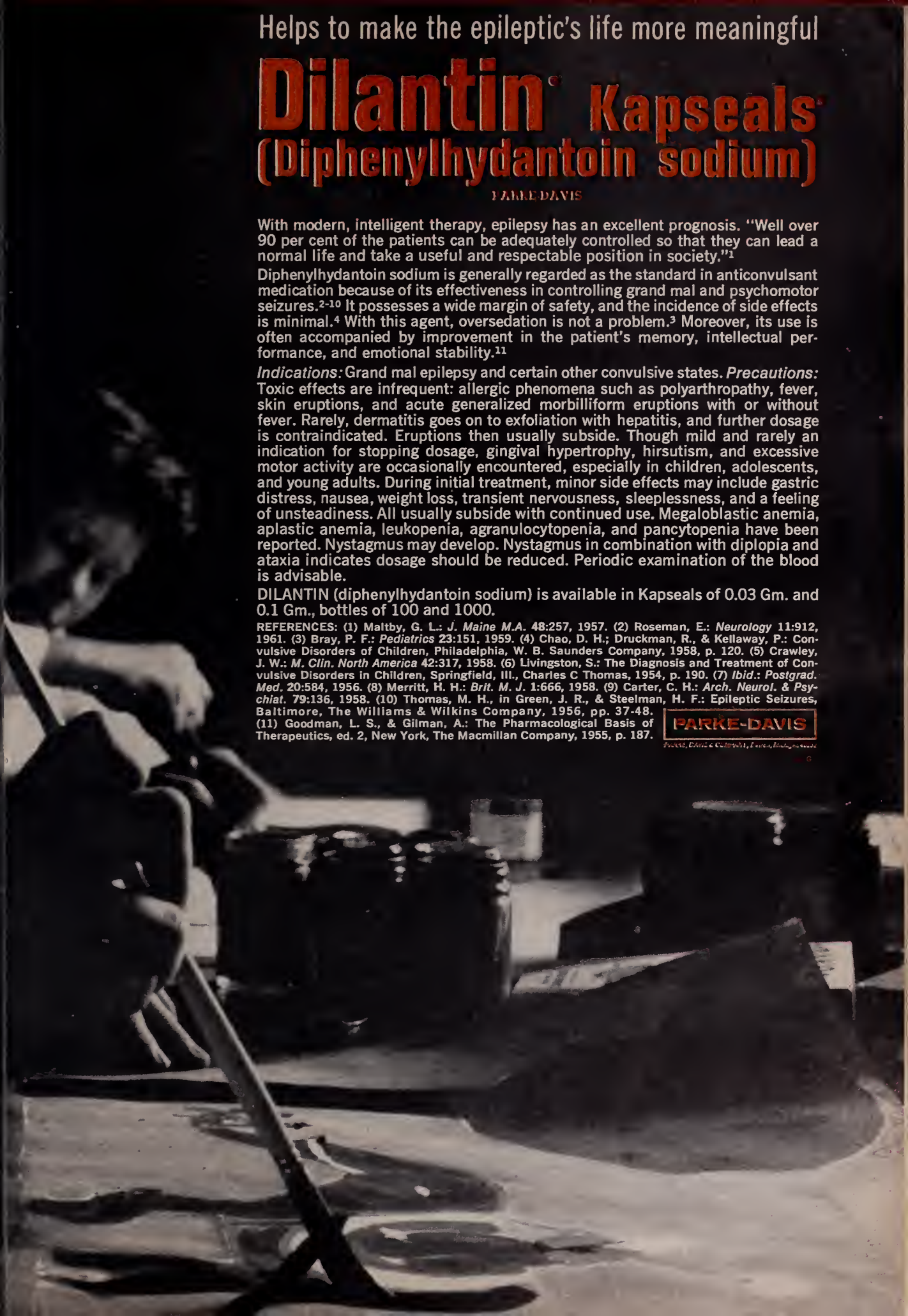
Indications: Grand mal epilepsy and certain other convulsive states. *Precautions:* Toxic effects are infrequent: allergic phenomena such as polyarthropathy, fever, skin eruptions, and acute generalized morbilliform eruptions with or without fever. Rarely, dermatitis goes on to exfoliation with hepatitis, and further dosage is contraindicated. Eruptions then usually subside. Though mild and rarely an indication for stopping dosage, gingival hypertrophy, hirsutism, and excessive motor activity are occasionally encountered, especially in children, adolescents, and young adults. During initial treatment, minor side effects may include gastric distress, nausea, weight loss, transient nervousness, sleeplessness, and a feeling of unsteadiness. All usually subside with continued use. Megaloblastic anemia, aplastic anemia, leukopenia, agranulocytopenia, and pancytopenia have been reported. Nystagmus may develop. Nystagmus in combination with diplopia and ataxia indicates dosage should be reduced. Periodic examination of the blood is advisable.

DILANTIN (diphenylhydantoin sodium) is available in Kapseals of 0.03 Gm. and 0.1 Gm., bottles of 100 and 1000.

REFERENCES: (1) Maltby, G. L.: *J. Maine M.A.* 48:257, 1957. (2) Roseman, E.: *Neurology* 11:912, 1961. (3) Bray, P. F.: *Pediatrics* 23:151, 1959. (4) Chao, D. H.; Druckman, R., & Kellaway, P.: Convulsive Disorders of Children, Philadelphia, W. B. Saunders Company, 1958, p. 120. (5) Crawley, J. W.: *M. Clin. North America* 42:317, 1958. (6) Livingston, S.: The Diagnosis and Treatment of Convulsive Disorders in Children, Springfield, Ill., Charles C Thomas, 1954, p. 190. (7) *Ibid.*: *Postgrad. Med.* 20:584, 1956. (8) Merritt, H. H.: *Brit. M. J.* 1:666, 1958. (9) Carter, C. H.: *Arch. Neurol. & Psychiat.* 79:136, 1958. (10) Thomas, M. H., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, The Williams & Wilkins Company, 1956, pp. 37-48. (11) Goodman, L. S., & Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 2, New York, The Macmillan Company, 1955, p. 187.

PARKE-DAVIS

Parke, Davis & Company, Detroit, Michigan, U.S.A.



The Journal of the TENNESSEE MEDICAL ASSOCIATION

Published Monthly

By Tennessee Medical Association

OFFICE OF PUBLICATION, 112 LOUISE AVENUE, NASHVILLE 5, TENNESSEE

Second Class Postage Paid at Nashville, Tennessee

Volume 56
No. 12

DECEMBER, 1963

Per Year, $5.00
Single Copy, 50 Cents

Published Monthly

Contents

A Physiologic and Anatomic Approach to the Surgical Treatment of Sliding Esophageal Hiatus Hernia, J. LYNWOOD HERRINGTON, JR., M.D., WILLIAM H. EDWARDS, M.D., and JOHN L. SAWYERS, M.D., Nashville, Tenn. 465

Spinal Fusion in the Treatment of Idiopathic Adolescent Scoliosis, PAUL R. HARRINGTON, M.D., Houston, Texas 470

Clinicopathologic Conference 480

President's Letter 486

Editorial 487

Special Item 489

Deaths 495

Programs and News of Medical Societies 495

National News 495

Medical News in Tennessee 497

Personal News 498

Announcements 499

1963 Members of TMA 500

Index to Volume 56 509

Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville 12, Tennessee.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed ten or twelve in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About It, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
R. H. KAMPMEIER, M.D., Editor
This Association Does Not Officially Indorse Opinions Presented in Different Papers Published herein
Copyright, 1963, by the Tennessee Medical Journal

Colds haven't changed— but relief has with NTz® NASAL SPRAY

NTz Nasal Spray gives on-the-spot relief for stopped-up noses instantly. Recommended by doctors for 10 years, it provides not one, but three powerful ways to fast relief.

In a carefully balanced formula, NTz contains:

Neo-Synephrine® HCl to shrink swollen nasal tissues and provide enough space for breathing

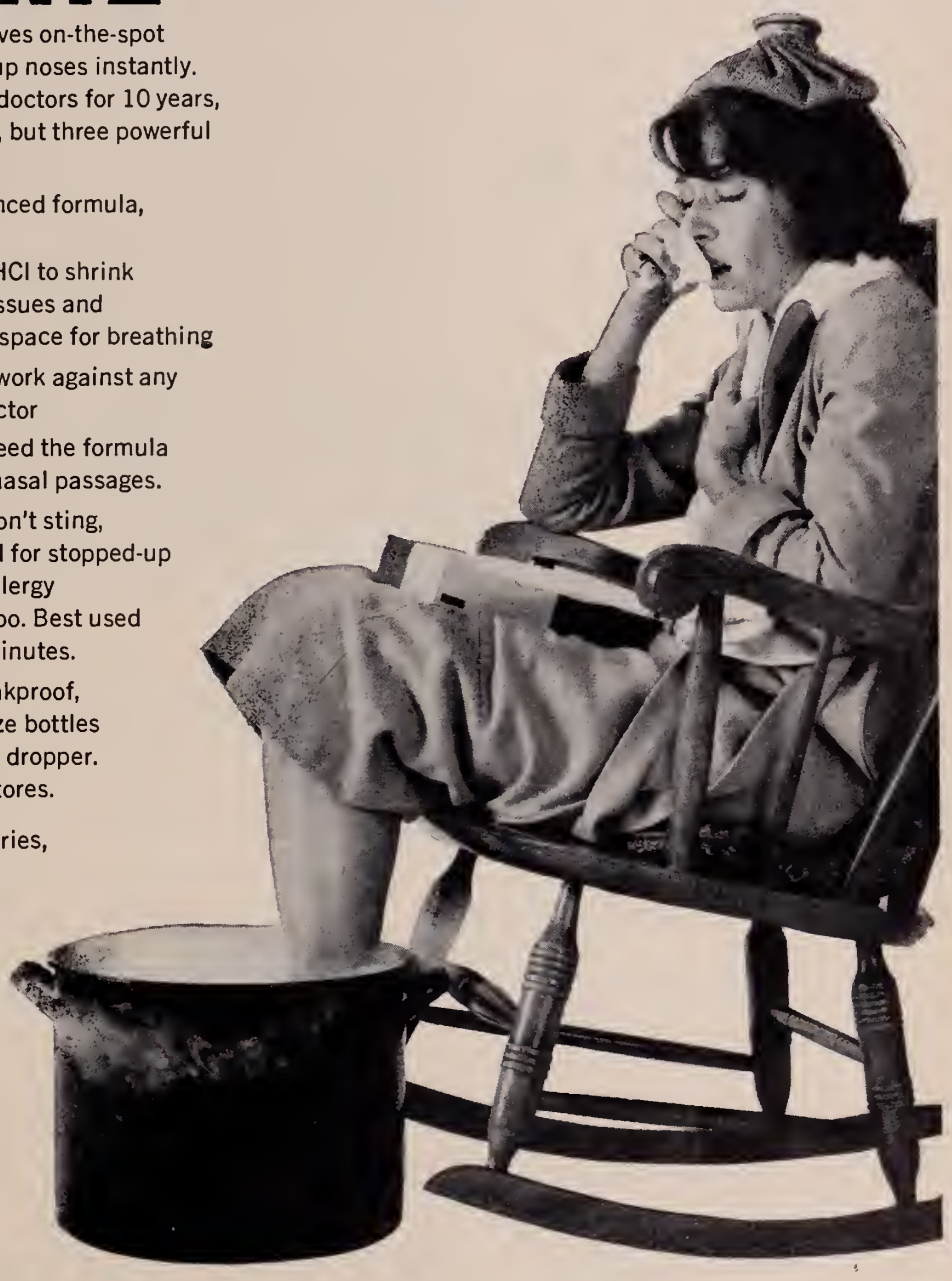
Thenfadil® HCl to work against any local allergic factor

Zephiran® Cl to speed the formula through **all** the nasal passages.

NTz Nasal Spray won't sting, won't irritate. Good for stopped-up noses caused by allergy and for sinusitis, too. Best used **twice** within five minutes.

NTz supplied in leakproof, pocket-size squeeze bottles and in bottles with dropper. Sold only in drugstores.

Winthrop Laboratories, New York 18, N. Y.



Winthrop

NTz, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran (brand of benzalkonium, as chloride, refined), trademarks reg. U. S. Pat. Off.

Is There A Doctor - - - -

WHO WANTS TO DRIVE A NEW CAR—

With No Capital Investment . . . Simplified Tax Deductions . . . Which May Save You Money . . . And No Worries About—Maintenance . . . Depreciation . . . Tires . . . Insurance . . . Or License?

Call or Visit the Lease Department of

OAK FORD **SALES AND SERVICE**

915 FIFTH AVE. NORTH
NASHVILLE 3, TENN.

MOTORS

Tel. AL 5-8661

We are a member of Largest Leasing System in the U. S.

Ford **AUTHORIZED LEASING SYSTEM**

Annual Clinical Conference

Chicago Medical Society

March 2, 3, 4 and 5, 1964

Palmer House, Chicago

Lectures *Teaching Demonstrations*

Medical Color Telecasts *Film Lectures*

Instructional Courses

The CHICAGO MEDICAL SOCIETY ANNUAL CLINICAL CONFERENCE should be a MUST on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.

Introducing A New Sulfonamide

SULFABID
BRAND OF SULFAPHENAZOLE

A POTENT, LOW DOSAGE SULFONAMIDE DISTINGUISHED BY ITS INCREASED MARGIN OF SAFETY.

AN INCREASED MARGIN OF SAFETY. . .



The need for critical dosage adjustment to avoid toxic manifestations, is minimized when the sulfonamide chosen is SULFABID (brand of sulfaphenazole).

With SULFABID (sulfaphenazole), effective blood and plasma levels are achieved with a convenient twelve-hour dosage schedule, yet its urinary solubility and rate of excretion combine to provide a high degree of safety with minimal risk of excessive drug accumulation. In order to demonstrate this high degree of safety, Essellier and co-workers (1), personally took 25 grams daily for five days . . . over *six times* the recommended therapeutic maintenance dosage level without experiencing intolerance.

SULFABID (sulfaphenazole) has been critically evaluated in the treatment of thousands of patients throughout the western world, more than one-third of whom were infants and children. The results have established that SULFABID (sulfaphenazole) is well tolerated, and that in appropriate dosage it produces satisfactory therapeutic effects.

SULFABID (sulfaphenazole) is indicated in a wide variety of infections caused by sulfonamide—susceptible bacteria, ... Abscesses, Bronchitis, Cellulitis, Cystitis, Furunculosis, Otitis media, Pharyngitis, Prostatitis, Pyelonephritis, Sinusitis, Tonsillitis, Urethritis and wound infections.

An informative brochure . . . with clinical findings and bibliography is available from your Physicians Products Medical Service Representative or by mail request.

THESE CASE STATISTICS BASED UPON 33 PUBLISHED REPORTS OF THERAPEUTIC RESPONSE TO SULFABID * (Sulfaphenazole)

Indications	No. of Patients	Response* Recovered	None
Biliary tract infections	24	18	6
Bronchitis	233	190	21
Pharyngitis, laryngitis	185	155	16
Other upper respiratory infections	261	199	32
Dysentery, enteritis	49	46	3
Febrile abortion	39	32	7
Pelvic Inflammatory disease--adnexitis, endometritis, parametritis, etc.	523	484	6
Lymphadenitis, sinusitis	32	28	3
Otitis	159	116	16
Puerperal infections	140	54	55
Skin diseases—furunculosis, pyoderma, erysipelas, etc.	78	54	8
Surgical infections	206	199	7
Tonsillitis	125	122	1
Urogenital infections— prophylaxis	269	222	58
therapy	989	723	139
Miscellaneous	393	292	71
	3705	2934	449
		79%	12%

*9% unreported

(1) Essellier, A. F., H. Hunsiker and R. Goldsand; Ibid 88:813, 1958.

Contraindications

SULFABID (Sulfaphenazole) is contraindicated in patients known to be sensitive to sulfonamides. Like most sulfonamides and certain other drugs, its use is also inadvisable in treating premature infants and in full-term infants for the first week of life due to underdeveloped enzyme systems and liver and renal function. For the same reasons, SULFABID (Sulfaphenazole) should be used with caution at term in pregnancy.

Precautions

While the reported incidence of reactions to SULFABID (Sulfaphenazole) is low, the usual precautions in sulfonamide therapy should be observed, including maintenance of adequate fluid intake. In the event of headache, nausea or vomiting, dosage should be reduced or discontinued; if urticaria, rash, fever or hematuria occur, the medication should be discontinued. When SULFABID (Sulfaphenazole) is used intermittently or for prolonged periods, blood counts should be performed regularly to detect the possible occurrence of blood dyscrasias. Administration of the drug should be stopped immediately if alterations are observed in the hematopoietic system. Patients with impaired renal function should be followed closely in order to avoid excessive drug accumulation.

Dosage:

SULFABID (Sulfaphenazole) is administered orally as tablets or as a suspension twice daily for five to seven days or until the patient remains asymptomatic for 48 hours.

	Initial Dose	Every 12 Hrs. Thereafter
Adults:		
Moderate to severe infections—		
6 tablets (3 gm.) or	2 tablets (1 gm.) or	
2 tablespoonfuls (30 cc.) of Suspension	2 teaspoonfuls (10 cc.) of Suspension	
Mild or urinary tract infections—		
4 tablets (2 gm.) or	2 tablets (1 gm.) or	
4 teaspoonfuls (20 cc.) of Suspension	2 teaspoonfuls (10 cc.) of Suspension	
Children:		
30 mg./lb.	15 mg./lb.	
1 teaspoonful of Suspension or 1 tablet per 17 lbs.	½ teaspoonful of Suspension or ½ tablet per 17 lbs.	

Incidence of Side Effects

In extensive clinical experience, the over-all incidence of side effects with SULFABID (Sulfaphenazole) has been low. Side effects were mainly limited to complaints of stomach upset and nausea, and these were mild and of short duration.

Supplied

*Tablets: 0.5 Gm., bottles of 50, 250, 1000.

*Suspension: 0.5 Gm. (500 mg) per 5 cc. (teaspoon), bottles of 50 cc. (non-spillable, with a dropper marked for ¼ and ½ teaspoon), and 1 pint.

SULFABID
BRAND OF SULFAPHENAZOLE

PHYSICIANS PRODUCTS CO., INC.
PETERSBURG, VIRGINIA

The one tranquilizer that

BELONGS IN EVERY PRACTICE

it's versatile: The years have proved that 'Miltown' (meprobamate) is the one tranquilizer that is helpful in almost every aspect of daily practice. Virtually any of your patients, regardless of age, can be given the drug with confidence, either as a primary treatment or as an adjunct to other therapy.

Outstanding record of safety: Over eight years of clinical use among millions of patients throughout the world — plus more than 1500 published reports covering the use of the drug in almost every field of medicine — support your prescriptions for 'Miltown' (meprobamate). This is why it *"belongs in every practice."*

dependable: 'Miltown' (meprobamate) is an established drug. There are no surprises in store for you or your patient. You can depend on it to help your patients through periods of emotional distress — and to help maintain their emotional stability.

easy to use: Because 'Miltown' (meprobamate) is compatible with almost any other kind of drug therapy, you'll find it fits in easily with any program of treatment you are now using. It will not, therefore, complicate treatment of patients seen in clinical practice.

BRIEF SUMMARY: *Indications:* Anxiety and tension states, and all conditions in which anxiety and tension are symptoms. *Side Effects:* Slight drowsiness may occur and, rarely, allergic or idiosyncratic reactions, generally developing after 1-4 doses of the drug. *Contraindications:* Previous allergic or idiosyncratic reactions to meprobamate contraindicate subsequent use. *Precautions:* Should administration of meprobamate cause drowsiness or visual disturbances, the dose should be reduced. Operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Prescribe cautiously and in small quantities, to patients with suicidal tendencies. Massive overdosage may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after prolonged use at high dosage. *Complete product information available to physicians on request.*

USUAL ADULT DOSAGE: 1 or 2 400 mg. tablets t.i.d.

SUPPLIED: 400 mg. scored tablets, 200 mg. coated tablets.

CM-9694



The insomniac



The tense, nervous patient



The heart-disease patient



The surgical patient



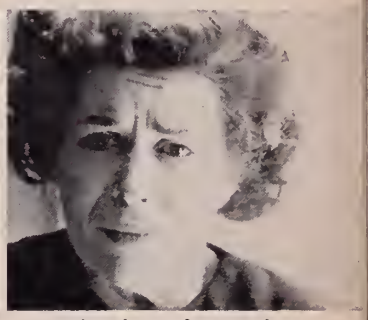
The girl with dermatosis



Tension headache



The woman in menopause



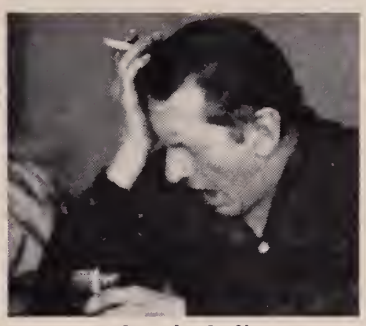
Anxious depression



Premenstrual tension



The agitated senile patient



The alcoholic



The problem child

the original brand of meprobamate

Miltown®



The G.I. patient

WALLACE LABORATORIES
Cranbury, N. J.

there is nothing "new" about Thorazine®



brand of
chlorpromazine

In the nine years since it became available to American physicians, Thorazine (chlorpromazine, SK&F) has been more widely used, more thoroughly investigated and more extensively documented than any other agent of its type.

Its actions, effects—and side effects—are well known throughout the medical profession. Its efficacy has been clearly demonstrated. And when properly used, its advantages far outweigh any possible disadvantages.

This is why there is nothing "new" about Thorazine (chlorpromazine, SK&F). This is why it remains the first choice in many conditions—and the standard against which other agents are inevitably compared.

This is why it is one of the fundamental drugs in medicine.

SMITH KLINE & FRENCH
LABORATORIES, PHILADELPHIA

SK&F

Important news in cardiac therapy

Two new clinical reports document successful long-term treatment of ischemic heart disease with

Persantin®, brand of dipyridamole

See next 3 pages

Study 1.
Griep,A.H.: Long-term Therapy of Ischemic Heart Disease With Oral Dipyridamole:
A Report of Fifty Cases. Angiology 14:484, 1963.

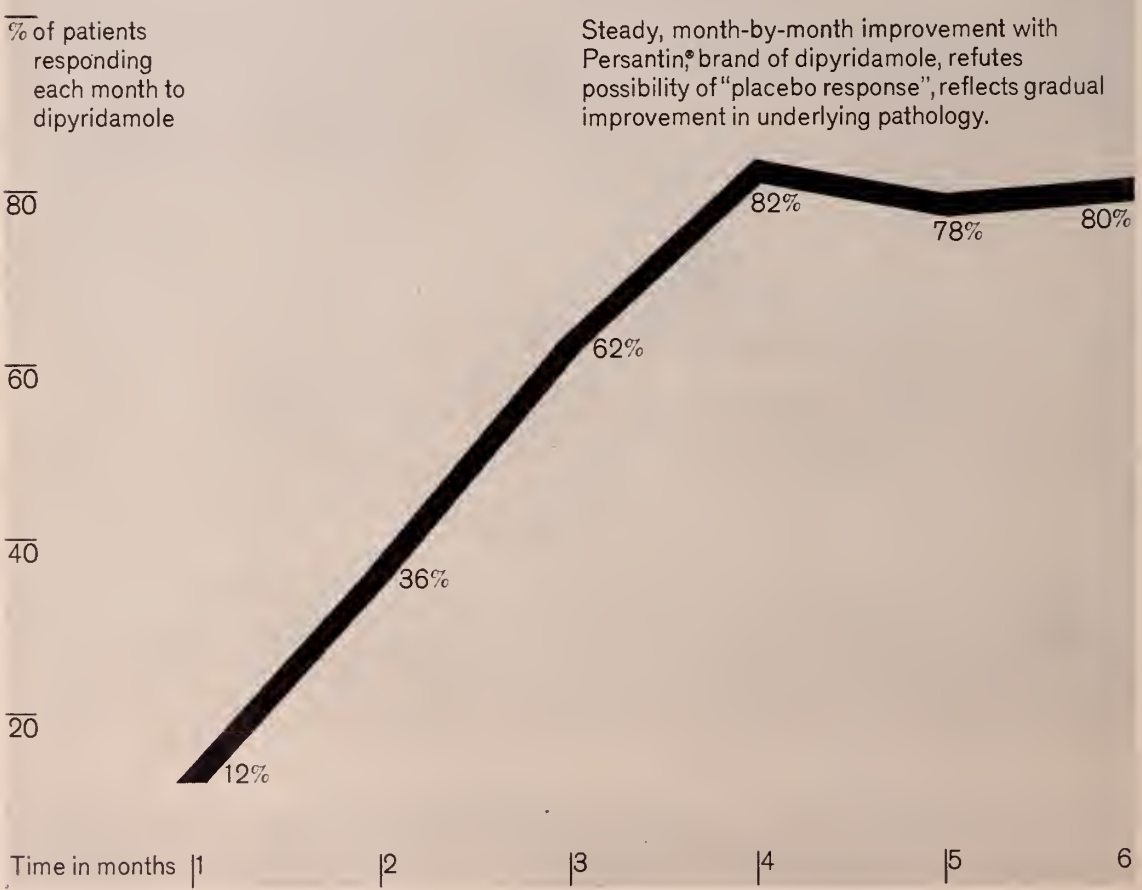
Persantin,® brand of dipyridamole, 25 mg. t.i.d. or q.i.d.,was administered continuously for 6 months to 50 patients with well authenticated ischemic heart disease with angina pectoris and ECG abnormalities. Results were evaluated on a monthly basis.

Persantin® brand of dipyridamole

"...long-term oral therapy with dipyridamole was of benefit in 80 per cent of the patients...

"relief [of angina] came slowly and was usually maximal after three to six months of continuous treatment"

Steady, month-by-month improvement with Persantin,® brand of dipyridamole, refutes possibility of "placebo response", reflects gradual improvement in underlying pathology.



Study 2.
Wirecki,M.: Dipyridamole (Persantin®): Evaluation of Long-Term Therapy in Angina Pectoris. Current Therapeutic Research 5:472,1963.

In 40 ambulatory patients with myocardial ischemia, angina pectoris, and abnormal ECG findings, Persantin,® brand of dipyridamole, 25 mg. t.i.d., was administered continuously for 3 months.

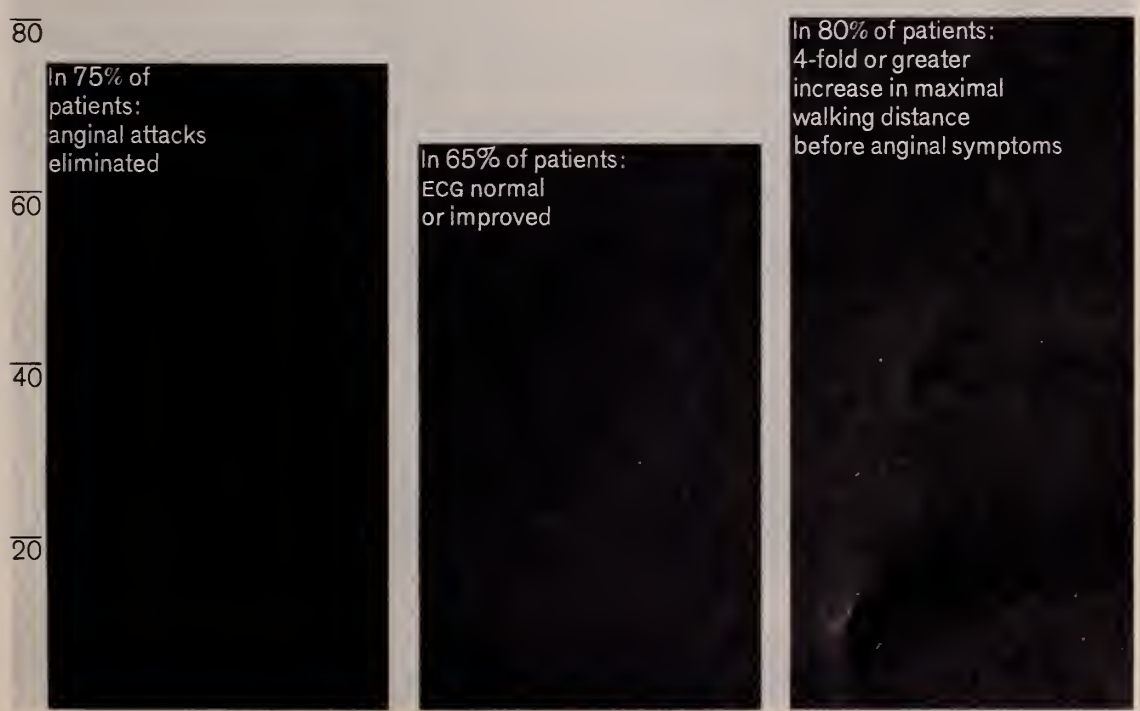
Geigy

After 3 months, 32 of 40 patients showed:

"...reduction or abolition of acute anginal attacks...

"complete or almost complete disappearance of ECG abnormalities...

"marked increase" in walking distance without anginal symptoms



Persantin® brand of dipyridamole

How long-term therapy provides clinical benefits reported on previous pages

1. By increasing energy yield
of the hypoxic myocardial cell, by direct action upon the sarcosomes (heart mitochondria).[1-5]

2. By improving collateral coronary circulation.
Prolonged oral administration of dipyridamole to animals with experimentally induced stenosis of a major coronary artery resulted in superior development of collateral coronary anastomoses and longer survival compared with controls.[6-9]

When given for prolonged periods and in adequate dosage, dipyridamole improves the coronary flow deficit of the ischemic myocardium while supporting cardiac metabolism during the period of repair. Clinically, this is manifested as steady improvement – anginal attacks diminish in frequency and intensity, as do other manifestations of insufficiency (dyspnea, fatigue, and, in many instances, abnormal electrocardiographic findings).

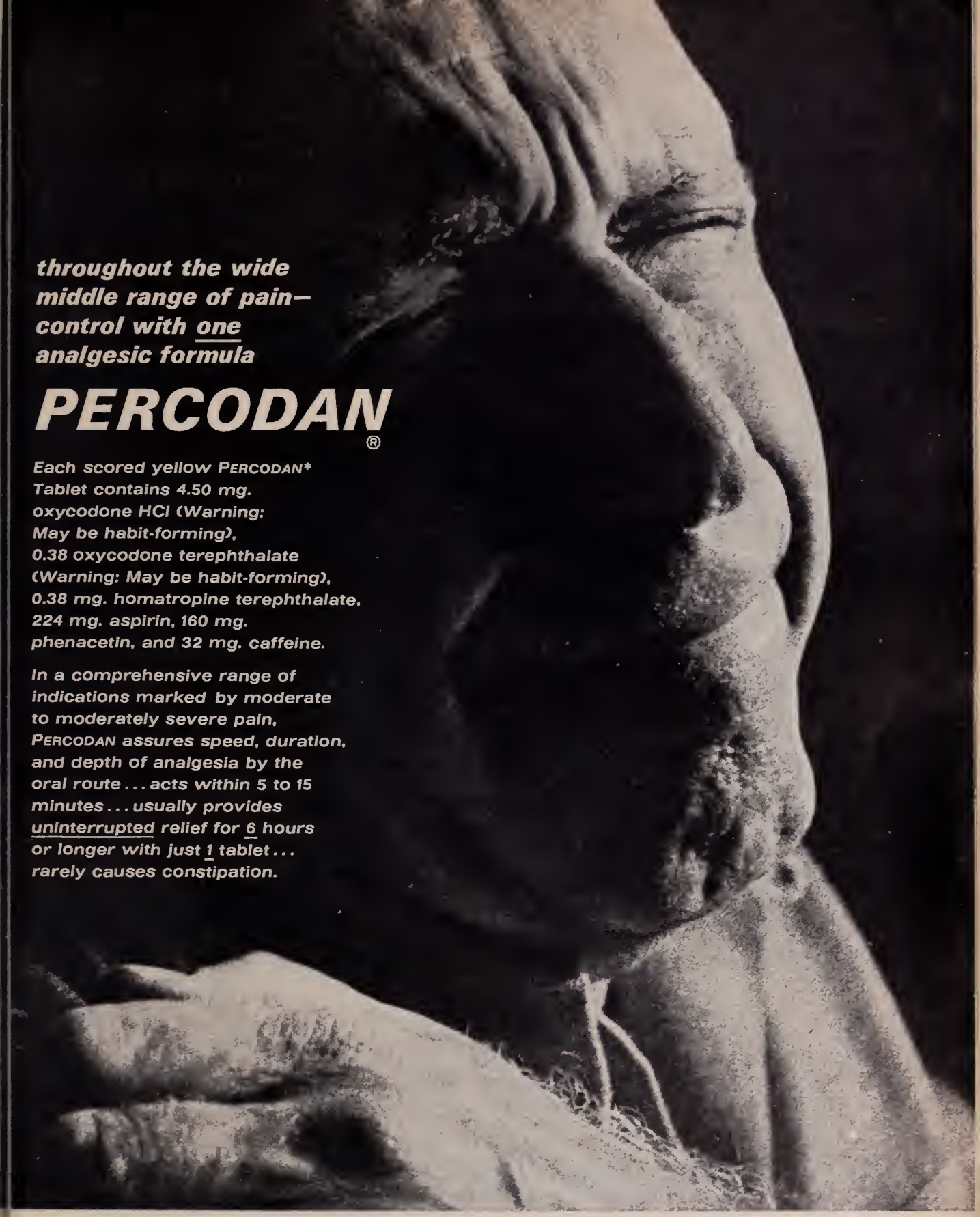
Availability:
Tablets of 25 mg., bottles of 100 and 1000.
Under license from Boehringer Ingelheim G.m.b.H.

Prescribing summary: Persantin,® brand of dipyridamole, is indicated in coronary and myocardial insufficiency, in a dosage of 2 to 6 tablets daily in divided doses before meals for several weeks. Side effects (headache, dizziness, nausea, flushing, weakness, syncope, mild gastrointestinal distress) are minimal and transient. The drug is not recommended in the acute phase of myocardial infarction, and should be used cautiously in hypotension.

References: 1.Kunz,W.;Schmid,W.,and Siess,M.: Arzneimittel-Forsch.12:1098,1962. 2.Siess,M.: Arzneimittel-Forsch.12:683,1962. 3.Laudahn,G.: Experientia 17:415,1961. 4.Lamprecht,W.: 27th Congress of the German Society for Circulation Research,Bad Nauheim,1961. 5.Hockerts,T.,and Bögelmann,G.: Arzneimittel-Forsch.9:47,1959. 6.Vineberg,A.M.,et al.: Canad.M.A.J.87:336,1962. 7.Chari,S.R.,et al.: Presented at the International Congress of Chest Physicians,New Delhi,1963. 8.Neuhaus,G.,et al.: Presented at the Fourth World Congress of Cardiology,Mexico City,1962. 9.Asada, S.,et al.: Japanese Circ.J.26:849,1962.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York, Distributors

PE-2290



throughout the wide middle range of pain— control with one analgesic formula

PERCODAN®

Each scored yellow PERCODAN* *Tablet contains 4.50 mg. oxycodone HCl (Warning: May be habit-forming), 0.38 oxycodone terephthalate (Warning: May be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. aspirin, 160 mg. phenacetin, and 32 mg. caffeine.*

In a comprehensive range of indications marked by moderate to moderately severe pain, PERCODAN *assures speed, duration, and depth of analgesia by the oral route... acts within 5 to 15 minutes... usually provides uninterrupted relief for 6 hours or longer with just 1 tablet... rarely causes constipation.*

Average Adult Dose—1 tablet every 6 hours. **Precautions, Side Effects and Contraindications**—The habit-forming potentialities of Percodan are somewhat less than those of morphine and somewhat greater than those of codeine. The usual precautions should be observed as with other opiate analgesics. Although generally well tolerated, Percodan may cause nausea, emesis, or constipation in some patients. Percodan should be used with caution in patients with known idiosyncrasies to aspirin or phenacetin, and in those with blood dyscrasias. **Also available:** Percodan®-Demi, containing the complete Percodan formula but with only half the amount of salts of oxycodone and homatropine. Both products are on oral Rx in all states where laws permit. Narcotic order required. **Literature on request.** **ENDO LABORATORIES Richmond Hill 18, New York**

Endo®

*U. S. Pats. 2,628,185 and 2,907,768

CORONARY VASODILATOR

. . . IN TIMED, SUSTAINED RELEASE FORM FOR PROTECTION DURING THE CRITICAL HOURS . . . .

3 COMBINATIONS FOR DESIRED EFFECT!

ANTORA-H

Phenobarbital (Warning: May be habit forming).	3/4 gr.
Hyoscyamine Sulfate	0.3858 mg.
Atropine Sulfate	0.0750 mg.
Hyoscine Hydrobromide	0.0222 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA-B

Secobarbituric Acid (Warning: May be habit forming).	50 mg.
Pentaerythritol Tetranitrate	30 mg.

ANTORA

Pentaerythritol Tetranitrate	30 mg.

The ANTORA family offers wide latitude in treating the angina patient with or without anxiety syndromes or with spastic and hypertonis symptoms. The versatility of PETN justifies its use in several combinations to benefit cardiovascular patients. No incompatibility with nitroglycerine is evident.

AVAILABLE: Bottles of 60 and 250 capsules.

BRIEF SUMMARY:

Side Effects: Transient headaches and nausea occasionally, not usually severe enough to discontinue medication. In a few sensitive patients, depression, arthralgias, xerostomia and myalgia may be observed. Contraindications: glaucoma, intraocular pressure, barbiturate hypersensitivity.

SAMPLES AND LITERATURE ON REQUEST

Mayrand, INC. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA



For comprehensive control of the whole pain complex... helps the whole patient

Like a triad, the action of Trancogesic is direct and simple as 1,2,3. Its tranquilaxant component — chlormezanone — 1. reduces emotional reaction to pain . . . 2. decreases skeletal muscle spasm . . . and 3. its aspirin component dims the patient's perception of pain. Thus, Trancogesic controls the *whole* pain complex, helps the *whole* patient — *with unsurpassed tolerance.*

Each tablet of Trancogesic contains 100 mg. of chlormezanone and 300 mg. (5 grains) of aspirin. The usual adult dosage is 2 tablets of Trancogesic three or four times daily; the dosage suggested for children from 5 to 12 years is 1 tablet three or four times daily. Reactions to Trancogesic have been minor — gastric distress, and an occasional weakness, sedation or dizziness. Ordinarily, these may be reversed by a reduction in dosage or temporary withdrawal of the drug. Trancogesic is contraindicated in persons known or suspected to have an idiosyncrasy to acetylsalicylic acid. WINTHROP LABORATORIES, NEW YORK 18, N. Y.

TRANCOGESIC*
CHLORMEZANONE with ASPIRIN
*TRADEMARK 100 MG. 300 MG.

Winthrop

1778M

"They keep saying I'm sloppy!"



Nicozol® helps you restore your geriatric patients' interest in themselves

NICOZOL therapy can help you brighten the outlook of your aging patients who tend towards (1) untidiness, (2) irritability, (3) incompatibility, (4) lack of interest, and (5) loss of memory or alertness.

The NICOZOL formula helps improve mental acuity, increase the supply and use of oxygen in the brain, improve peripheral circulation—without excitation, depression, or other untoward effects.

NICOZOL can help you keep your aging patients actively alert and at ease with themselves, their families, and others.

Supplied: NICOZOL tablets (and capsules) in bottles of 100 and 1000. NICOZOL elixir in pints and gallons.

Precautions: May produce overstimulation in high doses. Discontinue if muscular twitchings or clonic convulsions occur. The flush produced in sensitive individuals is transient and harmless.

Average Dose: 1 to 2 tablets (or capsules) 3 times a day. 1 teaspoonful elixir 3 times a day.

Formula: Each tablet or capsule contains:
Pentylenetetrazol.....100 mg.
Nicotinic Acid.....50 mg.
Each teaspoonful (5 cc.) elixir contains:
Pentylenetetrazol.....200 mg.
Nicotinic Acid.....100 mg.
(as the sodium salt)
Alcohol.....5%

HART | Division of A. J. Parker Co. LABORATORIES Bryn Mawr, Pa., Winston-Salem, N.C.

NICOZOL®

2 new works of timely interest

READY JANUARY FROM SAUNDERS

A New Book! ATOMIC ENERGY ENCYCLOPEDIA IN THE LIFE SCIENCES

Edited by C. W. Shilling

Covers Applications and Effects of Atomic Energy in the Fields of Medicine, Biology, and Agriculture. Every Item Verified by Experts of the U.S. Atomic Energy Comm.

This is the information you'll find in this authoritative new information source: the effects of atomic radiation on living material; the uses of radiation and radioisotopes in medicine, agriculture and biology; scores of other peaceful uses of atomic energy. Topics range from treatment of cardiac disease with radioactive isotope iodine-131 to methods of radioactive waste disposal. More than 1200 alphabetically-arranged entries give you precise information on topics with wide application to clinical practice and research as well as on topics of general, scientific, educational and historic interest.

Dr. Shilling and his distinguished contributors have combined the features of a dictionary with those of an encyclopedia. You'll find definitions for hundreds of technical terms (*absorption coefficient—acute radiation syndrome—cascade shower—Cerenkov radiation—mev—phantom—strontium unit—zeato—neutron therapy—etc.*) as well as articles of a page or more on such subjects as *Recovery from Irradiation—Treatment of Radiation Illness—Blast Biological Damage—Radioactive Dosimetry—etc.*

More than 260 helpful illustrations portray a diversity of topics: *Example of radioactive contamination of the food chain—Cutaway drawing of a medical research reactor—Types of cell damage associated with irradiation—Schematic representation of the optical systems of the light and electron microscopes—Typical device for linear scanning of the entire body—etc.*

In addition—98 tables list such information as: *Colloidal and Large Particle Radioisotopes for Medical Uses—Gastrointestinal Absorption of Radioisotopes—Maximum Permissible Total Body Bardens for Four Radionuclides—etc.*

Here is a volume you will turn to for precise answers to specific queries, as well as for fascinating browsing in rare leisure moments.

Editor and Major Contributor, CHARLES WESLEY SHILLING, M.D., D.Sc., Consultant to the United States Atomic Energy Commission; Deputy Director, Division of Biology and Medicine, USAEC, 1955-60. With the Assistance of MIRIAM TEED SHILLING, M.A. Prepared under the auspices of the Division of Technical Information, USAEC. 474 pages, 7¼" x 10¼", with 268 illustrations, 98 tables. About $10.50. *New—Ready January!*

A New Book! Gellis and Kagan's CURRENT PEDIATRIC THERAPY

Specific Details of Over 300 Treatments Tailored to the Special Needs of Young Patients

A New Biennial Volume! This uniquely helpful *Current Pediatric Therapy Volume* brings you the same type of specific therapeutic recommendations that users of *Current Therapy* have enjoyed for some 15 years—*but keyed directly to the treatment needs of children.* Dr. Sydney S. Gellis and Dr. Benjamin M. Kagan have edited this new work, which will be revised every two years. Contributions by over 200 leading authorities pinpoint therapeutic details for more than 300 diseases—from *Kwashiorkor* and *Protein Deficiency* to *Infantile Cortical Hyperostosis.*

All discussions are approached from the pediatric point of view, with dosages, diets, prescriptions, etc., written for infants and children, and broken down, where necessary, into age or weight groups. You will find specific advice on: *selection of proper antimicrobial agents for various types of pneamonia; use of methicillin and oxacillin in staphylococcic empyema; new dosage schedule for digitalis preparations administered to infants; detailed instructions for steroid therapy in leukemia; etc.*

Whether you need a diet for a phenylketonuric child, help on deciding the proper dosage of antiepileptic medication, or late information on immunization schedules, you'll find it spelled out in *Current Pediatric Therapy.*

A Biennial Volume. By 248 Leading Authorities. Edited by SYDNEY S. GELLIS, M.D., Professor of Pediatrics and Chairman of the Department of Pediatrics, Boston University School of Medicine; Director of Pediatrics, Boston City Hospital; and BENJAMIN M. KAGAN, M.D., Director, Department of Pediatrics, Cedars of Lebanon Hospital, Los Angeles; Clinical Professor of Pediatrics, University of California, Los Angeles. About 815 pages, 7⅛" x 10½". About $16.00. *New—Ready January, 1964!*

To Order Mail Coupon Below!

W. B. SAUNDERS COMPANY
West Washington Square, Philadelphia 5, Pa.

Please send when ready and bill me:

☐ *Atomic Energy Encyclopedia* ..... About $10.50
☐ *Current Pediatric Therapy* ..... About $16.00

Name.....

Address.....

SJG 12-63



Protects your angina patient better than vasodilators alone

'Miltrate' contains both pentaerythritol tetranitrate, which dilates the patient's coronary arteries, and meprobamate, which relieves his anxiety about his condition. Thus 'Miltrate' protects your angina patient better than vasodilators alone.

Pentaerythritol tetranitrate may infrequently cause nausea and mild headache, usually transient. Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Like all nitrate-containing drugs, 'Miltrate' should be given with caution in glaucoma.

Dosage: 1 or 2 tablets *before meals* and at bedtime. Individualization required.
Supplied: Bottles of 50 tablets.

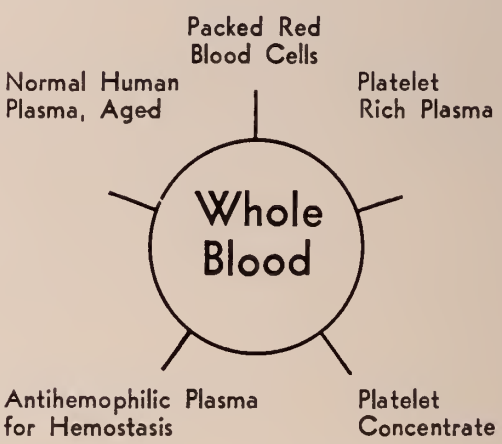
CML-9646

Miltrate®
meprobamate 200 mg.+
pentaerythritol tetranitrate 10 mg.

WALLACE LABORATORIES / *Cranbury, N. J.*

Follow the trend to

BLOOD COMPONENT THERAPY



Best for the patient and More Economical.

All available from

BLOOD BANK FOUNDATION

1921 Broadway ALpine 4-3551
NASHVILLE, TENNESSEE



ACHROCIDIN®

TETRACYCLINE HCl-ANTIHISTAMINE-ANALGESIC COMPOUND

Each Tablet contains:

ACHROMYCIN® Tetracycline HCl	125 mg.	Caffeine	30 mg.
Acetophenetidin (Phenacetin)	120 mg.	Salicylamide	150 mg.
		Chlorothen Citrate	25 mg.

Effective in controlling tetracycline-sensitive bacterial infection and providing symptomatic relief in allergic diseases of the upper respiratory tract. Possible side effects are drowsiness, slight gastric distress, overgrowth of nonsusceptible organisms, tooth discoloration. The last named may occur only if the drug is given during tooth formation (late pregnancy, the neonatal period, early childhood). Average Adult Dosage: 2 Tablets four times daily.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

7144-3

Lederle

CITY VIEW SANITARIUM

For the diagnosis and treatment of nervous and mental disorders, and addictions to alcohol and drugs.

Established 1907

JOHN W. STEVENS, M.D.

Founder

NASHVILLE, TENNESSEE

Remember, Doctor—

It's been

Tafel Surgical Supply Co., Inc.

SINCE 1889

for

Drugs, Orthopedic, Surgical

Supplies & Equipment

1203 Church Street

Nashville, Tennessee

PSYCHIATRIC RESIDENCIES for G. P.s

NIMH residency training in approved three year program. Stipend $11,500 to $12,000. Applicants must have completed four years or more of practice in field of medicine other than psychiatry after an approved internship. Applicants should not be over 40. Address inquiries to Chairman, Department of Psychiatry, Medical College of Virginia, Richmond, Virginia. Include curriculum vitae.



Notable increase in vigor, strength and sense of well-being

ISTROL (stanozolol-Winthrop), a heterocyclic steroid, combines ent anabolic effects with outstanding tolerance, stimulates appe- and promotes weight gain ... restores a positive metabolic balance. ounteracts the catabolic effects of concomitant corticosteroid or TH therapy. WINSTROL (stanozolol-Winthrop) rebuilds body tissue le it builds strength, confidence and a sense of well-being in con- ons associated with excess protein breakdown, insufficient protein ake and inadequate nitrogen and mineral retention.

e Effects and Precautions: Prolonged administration can produce d hirsutism, acne or voice change. In an occasional patient, edema been observed and in young women the menstrual periods have n milder and shorter. These side effects are reversible, and pa- its receiving prolonged treatment should be examined and ques- tioned periodically so that, should side effects appear, the dosa may be reduced or administration of the drug discontinued for a tim In patients with impaired cardiac and renal function, there is the po sibility of sodium and water retention. Liver function tests may reve an increase in bromsulphalein retention, particularly in elderly p tients. In such cases, therapy should be discontinued. Although it h been used in patients with cancer of the prostate, its mild androgen activity is considered by some investigators to be a contraindicatio

Dosage: Usual adult dose, 1 tablet t.i.d. before or with meals; your women, 1 tablet b.i.d.; children (school age): up to 1 tablet t.i.d.; ch dren (pre-school age): ½ tablet b.i.d. Available as scored tablets 2 mg. in bottles of 100. For best results, administer with a high prote diet.

WINTHROP LABORATORIES, NEW YORK 18, N.

arked improvement in appetite / Measurable weight gain Winthrop

RECOGNIZE THIS PATIENT?



"I don't sleep well . . . I dream a lot . . . wake up tired and irritable. I don't have any appetite . . . I'll never be cured."

When you recognize signs of depression and anxiety and associate them with an organic condition—add 'Deprol' to your therapy.

Typical conditions in which 'Deprol' should be considered for control of the associated depression and anxiety:

cardiovascular disorders ■ arthritis ■ cancer ■ menopause ■ alcoholism ■ obesity ■ asthma, hay fever and related allergies ■ chronic infectious diseases ■ dermatoses ■ G.I. disorders, and many other organic disturbances.

When you recognize depression and anxiety traceable to an emotionally charged situation with no somatic disorder—start the patient on 'Deprol'.

Typical situations in which 'Deprol' is indicated:

fear of cancer or other life-threatening disease ■ pre- and post-operative fears ■ postpartum despondency ■ family problems ■ death of a loved one ■ loss of work ■ retirement problems ■ financial worries, and many other stressful situations.

Deprol®

meprobamate 400 mg. + benactyzine hydrochloride 1 mg.

BRIEF SUMMARY: *Indications:* Depression, especially when accompanied by anxiety, tension, agitation, rumination or insomnia. *Side Effects:* Slight drowsiness and, rarely, allergic reactions, due to meprobamate, and occasional dizziness or feeling of depersonalization in higher dosage, due to benactyzine, may occur. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage. *Complete product information available in the product package, or to physicians upon request.*

USUAL ADULT DOSAGE: 1 tablet q.i.d. May be increased gradually, as needed, to 3 tablets q.i.d.; with establishment of relief, may be reduced gradually to maintenance levels.

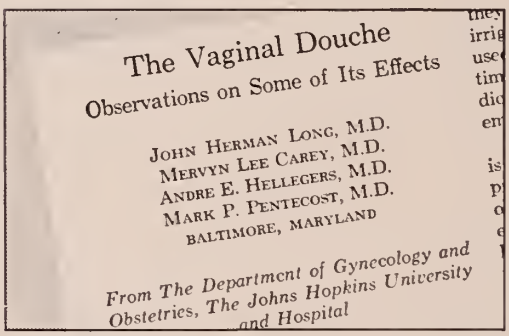
SUPPLIED: Light-pink, scored tablets. Bottles of 50.

WALLACE LABORATORIES / *Cranbury, N. J.*

CO-817

A Valuable Contribution To Medical Literature

A DEFINITIVE STUDY ON DOUCHING



The Vaginal Douche

Observations on Some of Its Effects

JOHN HERMAN LONG, M.D.
MERVYN LEE CAREY, M.D.
ANDRE E. HELLEGERS, M.D.
MARK P. PENTECOST, M.D.
BALTIMORE, MARYLAND

From The Department of Gynecology and Obstetrics, The Johns Hopkins University and Hospital

A SEARCH OF MEDICAL LITERATURE REVEALS NO COMPARABLE OBJECTIVE EVALUATION OF THE SUBJECT.

The authors state at the outset,

"Each physician has his own idea of the value or harm of the vaginal douche and many have expressed such ideas in writing. Such opinions have been arrived at without any intensive investigation or observation of subjects using douches as compared to those not using them. The purpose of this study is to report our observations on three groups of patients, one taking no douches, a second douching with a medicated solution* and a third douching with plain water."[1]

1. West. J. Surg., Obsts. & Gynec.: *71*:122-127, 1963

*The medicinal powder used in this study was META CINE®, a scientifically formulated preparation containing: papain, lactose, citric acid, methyl salicylate, eucalyptol, menthol and chlorothymol.

OBSERVATIONS BASED ON EXTENSIVE AND THOROUGH EXAMINATION SCHEDULE.

"One hundred patients were selected at random, regardless of their chief complaint, from the general population attending the Out-Patient Gynecology Clinic of The Johns Hopkins Hospital. Those selected were reexamined at 1, 3, 6, 9 and 12 months after the initial visit."

"At intervals patients were switched to the regimen of another group so that comparison of the effect of douching or not douching might be made in the same individual."

Three years were required to complete the study.

An evaluation of the objective findings of the study demonstrates that douching with META CINE® had the following effects on vaginal secretion:

- increased Doderlein organisms,
- proved effective in lowering WBC counts,
- proved effective in increasing glycogen content.

META CINE® was found to be a good antagonist to vaginal discharge and irritation—and also proved effective in reducing cervicitis.

No untoward effects of douching were encountered in the study.

Reprints of the complete study and professional samples of Meta Cine are available on request.

BRAYTEN PHARMACEUTICAL COMPANY • *Chattanooga 9, Tennessee*



Smooths out emotional peaks and valleys

'Meprospan'-400 brand of meprobamate contains 400 mg. in sustained-release form. One capsule smooths out the anxious patient's emotional peaks and valleys for 10 to 12 hours – and provides these other advantages:

1. **Especially suitable for maintenance therapy.** Patients whose anxiety has diminished to a mild or moderate level still require a certain amount of tranquilization throughout the day. Sustained-release action is ideally suited to this type of patient.
2. **Simpler dosage schedule.** Since one capsule of 'Meprospan'-400 (meprobamate, sustained release) acts 10 to 12 hours, the patient enjoys a much simpler dosage schedule than with tablets – and is less likely to forget to take the medicine.

Side Effects: Rarely, skin reactions. May increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Massive overdosage may produce coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence in patients with history of drug or alcohol addiction.

Available: *'Meprospan'-400* (meprobamate, sustained release) contains meprobamate 400 mg. *'Meprospan'-200* (meprobamate, sustained release) contains meprobamate 200 mg. Both potencies in bottles of 30. **Usual dosage:** One 400 mg. capsule or two 200 mg. capsules at breakfast; repeat with evening meal.

Meprospan®-400
meprobamate 400 mg.
sustained release

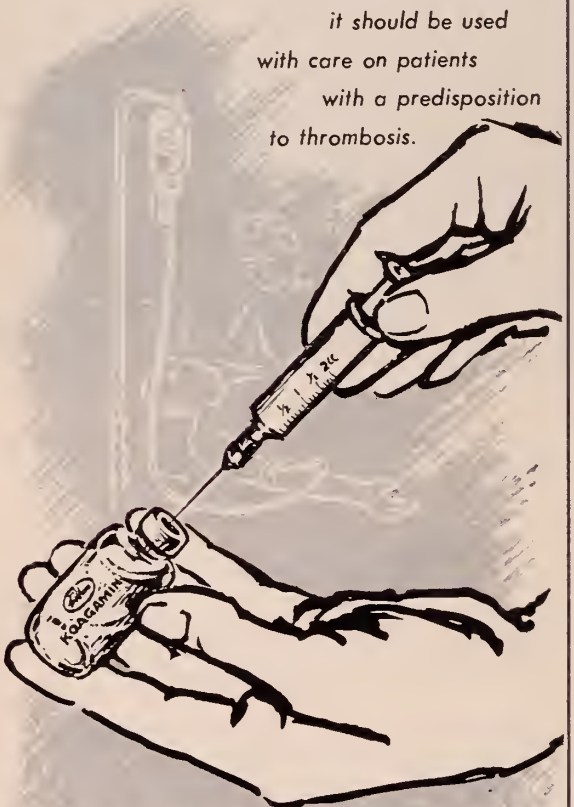
WALLACE LABORATORIES / *Cranbury, N.J.*

CME-9188

reduce or obviate the need for transfusions and their attendant dangers

KOAGAMIN is indicated whenever capillary or venous bleeding presents a problem.

KOAGAMIN has an outstanding safety record -- in 25 years of use no report of an untoward reaction has been received; however, it should be used with care on patients with a predisposition to thrombosis.



KOAGAMIN®

parenteral hemostat

Each cc contains: 5 mg. oxalic acid, 2.5 mg. malonic acid, phenol 0.25%; sodium carbonate as buffer.

Complete data with each 10cc vial. Therapy chart on request.

Chatham CHATHAM PHARMACEUTICALS, INC.
Newark 2, New Jersey

Distributed in Canada by Austin Laboratories, Ltd. • Paris, Ontario



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN

Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities

KAY SURGICAL, INC.
1144 Madison Ave. Memphis, Tenn.



In Sprains, Strains and Muscle Spasm, 'Soma' Compound

numbs the pain...not the patient

A potent analgesic and a superior muscle relaxant

1. A sprain or fracture is not a big clinical problem—but it does hurt. And if there is housework to do and kids to mind, the patient needs something to numb the pain.

2. A.P.C. compounds have limited usefulness; and the patient can buy them without your prescription. Unfortunately, most of them are too mild to be effective for sprains—and more potent products too often make the patient feel 'dopey'.

3. 'Soma' Compound is ideal in these cases. Since it contains both 'Soma' (carisoprodol) and acetophenetidin it is both a potent analgesic and a superior muscle relaxant; it also contains caffeine to offset any drowsiness *("numbs the pain...not the patient").*

4. Why not try 'Soma' Compound? Dosage is 1 or 2 tablets q.i.d. For more severe pain, try 'Soma' Compound + Codeine. Dosage: 1 or 2 tablets q.i.d.

5. Hypersensitivity to carisoprodol may occur rarely. Codeine may produce addiction, nausea, vomiting, constipation or miosis.

Soma® Compound

carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg.

Soma® Compound + Codeine

carisoprodol 200 mg., acetophenetidin 160 mg., caffeine 32 mg., codeine phosphate 16 mg. (Warning—may be habit forming.)

®WALLACE LABORATORIES / *Cranbury, N.J.*

CSO-9193



it's a long walk from gate 6...

It's a long walk from almost *anywhere* for anyone suffering the excruciating, itching discomfort of *pruritus vulvae.* ARISTOCORT Triamcinolone Acetonide Cream is highly active against the embarrassing and intolerable irritation of pruritus ani and vulvae. Sparing application to the affected area—3 to 4 times daily—usually provides rapid relief. And when excoriation of the area has led to infection, the choice of NEO-ARISTOCORT Neomycin Sulfate-Triamcinolone Acetonide will assure activity against a wide range of skin pathogens. A possible side effect may be local skin sensitization due to neomycin. Contraindications (both forms): tuberculosis of the skin, herpes simplex, and chicken pox. Prescribe tubes of 5 or 15 Gm. Also available in ½ lb. jars.

Aristocort® TOPICAL CREAM 0.1% AND OINTMENT 0.1%
Triamcinolone Acetonide

Neo-Aristocort® CREAM 0.1% AND OINTMENT 0.1%
Neomycin Sulfate (0.5%)—Triamcinolone Acetonide (0.1%)

Lederle LEDERLE LABORATORIES • A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York
232-3

blood, milk and Maalox®

(magnesium-aluminum hydroxide gel)

Practically standard treatment, now, for bleeding ulcer. Why is Maalox included? Antacid therapy *must* continue long after the wound has healed, and patients started on Maalox tend to stay on Maalox. It tastes good; it's effective and will not cause constipation—three important reasons for Maalox over the long haul. Some physicians, we are told, order Maalox routinely for hospital patients on drugs which could irritate. They feel it reduces the likelihood of gastric discomfort. Supplied: Suspension; Tablets No. 1; Tablets No. 2. (Each Maalox No. 1 Tablet is equivalent to 1 teaspoonful and each Maalox No. 2 Tablet is equivalent to 2 teaspoonfuls of Suspension.)



RORER

WILLIAM H. RORER, INC., FORT WASHINGTON, PA.

Schering



Your recommendation of **Coricidin** assures responsible treatment of common colds. For added decongestant action, recommend Coricidin "D" Decongestant Tablets.

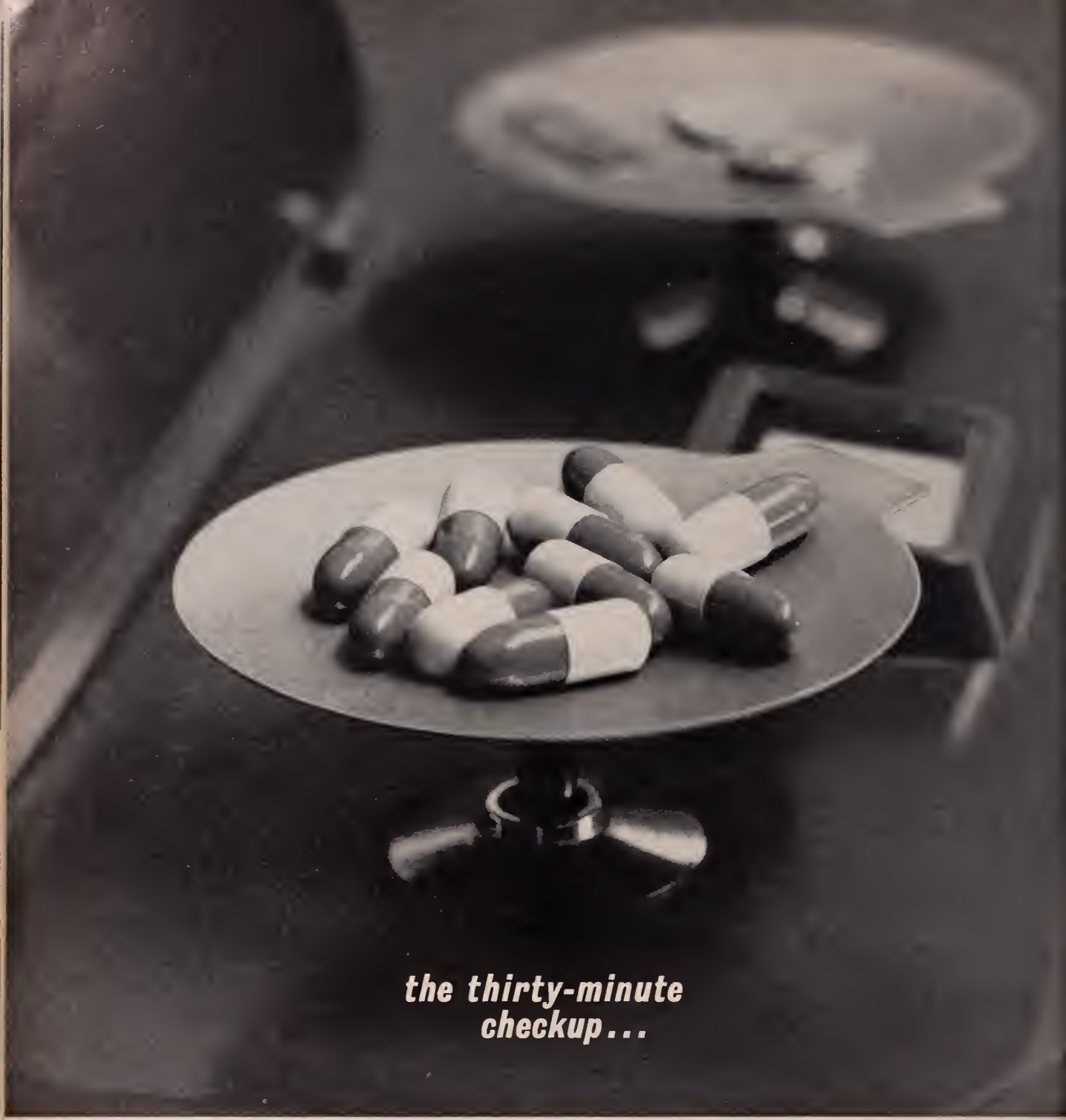


Each CORICIDIN Tablet contains: CHLOR-TRIMETON® (chlorpheniramine maleate, Schering) 2 mg., aspirin 0.23 Gm., phenacetin 0.16 Gm., caffeine 0.03 Gm.

Each CORICIDIN "D" Tablet contains phenylephrine 10 mg. in addition to the above ingredients.

CORICIDIN Tablets, brand of antihistaminic-antipyretic-analgesic compound

S-161



Empty capsules are filled by the finest precision machinery available . . . but no machine is perfect. That's why all Lilly Pulvules® (filled capsules) are given the "thirty-minute checkup" to be certain that uniformity is maintained. At least once every thirty minutes ten filled capsules are taken from each machine and carefully weighed on a prescription balance. In addition, the checks are double-checked at least four times each day . . . another of the many stringent controls which assure you that the Lilly products you prescribe provide quality that merits the full measure of your confidence.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

300680

Journal of the Tennessee Medical Association
OWNED AND PUBLISHED BY THE ASSOCIATION
Volume 56 DECEMBER, 1963 Number 12

A Physiologic and Anatomic Approach to the Surgical Treatment of Sliding Esophageal Hiatus Hernia

J. LYNWOOD HERRINGTON, JR., M.D., WILLIAM H. EDWARDS, M.D., and JOHN L. SAWYERS, M.D.,* Nashville, Tenn.

The authors believe that by combining vagotomy and pyloroplasty with procedures to correct the hiatal hernia, the results of operation are consistently better.

A sliding or axial type of esophageal hiatus hernia is a common finding on roentgen study of the upper gastrointestinal tract. Indeed, it is second only in frequency to duodenal ulcer disease. The current interest in hiatus hernia is evidenced by the fact that over 300 publications have appeared in the literature over the past five years related to this subject.[1,4-9] Internists and surgeons alike recognize that hiatus hernia is a frequent source of lower thoracic and upper abdominal complaints. While it is true that a sizeable percentage of hiatus hernias do not produce symptoms, over 50% of the hernias do give rise to disturbances in the alimentary tract. Also, the size of the hernia is not correlated to the severity of the symptomatology. Indeed, some of the smaller hernias may be responsible for distressing symptoms and resulting complications (Fig. 1).

It is generally accepted that mild digestive symptoms incident to esophageal hiatus hernia should be treated with a strict medical regimen. However, if symptoms are not readily controlled or if they increase in severity, surgical intervention for repair



FIG. 1. The film shows a very small sliding esophageal hiatus hernia with severe esophagitis. The patient had massive bleeding from superficial esophageal ulcerations.

of the hernia should be given serious consideration. Symptoms may progress in severity while the patient is on a strict medical program, and operation should not be delayed until the complications of severe esophagitis, ulceration, hemorrhage, or stricture formation occur (Fig. 2).

Anatomic and Physiologic Considerations

With esophageal hiatus hernia, an acquired anatomic defect or weakness in the crural muscular fibers and supporting tissue of the portion of the diaphragm which surrounds the esophagus is responsible for herniation of varying amounts of the gastric cardia into the posterior mediastinum. These hernias usually occur in middle age or in later life and are frequently encoun-

*From the Edwards-Eve Clinic, Nashville, Tenn.



FIG. 2. A sliding esophageal hiatus hernia with partial esophageal stricture, which became apparent while the patient was on a strict medical program.

tered in obese individuals. When herniation occurs, the cardia is displaced upward into the mediastinum and lies in the same axial plane as the esophagus, thus resulting in loss of the oblique angle which the esophagus normally makes with the gastric cardia. The angle of His is thus destroyed and the esophagogastric mechanism is rendered incompetent (Fig. 3). As result of this anatomic defect a more important physiologic derangement takes place. The gastric juice in the stomach, which does not normally cross the esophageal barrier except during the act of vomiting, is now able to regurgitate freely into the lower esophagus as a result of the loss of the pitchcock action at the esophagogastric junction. The esophageal mucosa is unduly sensitive to the corrosive effects of gastric juice, and its presence accounts for the substernal discomfort and pyrosis experienced by the patient. The acid peptic reflux may produce esophageal ulceration with hemorrhage or even stricture formation.



FIG. 3. A typical sliding esophageal hiatus hernia with a portion of the cardia incorporated in the posterior mediastinum.

The surgical correction of the anatomic defect in the diaphragm in cases of esophageal hiatus hernia, when either a transthoracic or transabdominal route is employed, has not proven entirely satisfactory in providing relief of the patient's symptoms. Indeed, many observers have expressed dissatisfaction with the anatomic repair alone and have reported recurrence rates ranging from 10 to 20 per cent. A recent report from the University of Minnesota Hospitals cited a recurrence rate of 45 per cent.[10] In a consideration of the factors influencing recurrence, it should be emphasized that the crural muscular fibers surrounding the esophagus in cases of esophageal hiatal hernia are frequently found to be attenuated, thinned-out and atrophied. As stated previously, many of these patients are obese and the anatomic structures may be of such poor consistency that a secure and adequate repair of the anatomic defect cannot always be obtained. Although one performs as anatomic a reconstruction of the defect as possible, at times it leaves something to be desired. It is inevitable that a certain percentage of these patients will develop a recurrent hernia. Also, it is well understood that in some instances following repair of hiatus hernia incompetence of the gastroesophageal sphincter mechanism may still persist, even though there is no radiologic evidence of recurrence of the hernia. Such patients will continue to complain of symptoms suggestive of postoperative esophagitis and the gastroesophageal incompetence may at times be confirmed by pH studies of the

lower esophagus along with cinefluoroscopy. Thus, it would appear that there may be other facets in addition to repair of the anatomic defect which are worthy of consideration if the operative results are to be improved upon.

It has been noted by several observers that a sizeable percentage of patients with sliding esophageal hiatus hernias have increased values of gastric acidity, even though no coexisting duodenal ulcer exists. The nocturnal secretions in some of these patients may approximate the values seen in patients with peptic ulcer disease. Therefore, an operation aimed at reducing gastric acidity and the promotion of prompt emptying of the stomach, in addition to repair of the hernia, might theoretically at least result in elimination of gastric stasis and the prevention of peptic acid regurgitation into the lower esophagus. The addition of bilateral total truncal vagotomy or selective gastric vagotomy with concomitant pyloroplasty might accomplish this aim. The repair of the crural diaphragmatic defect, with suture of the supporting structures of the diaphragm and reconstruction of the angle of His, is still an important feature of the composite operation. However, the addition of vagotomy will reduce gastric acid values to a low level and the employment of pyloroplasty will insure rapid and thorough gastric emptying. Should the hiatus hernia recur following the composite operation, or should the gastroesophageal mechanism remain incompetent, this incompetency should theoretically be balanced by the incompetency at the pylorus resulting from pyloroplasty and thus regurgitation should not take place.

Clinical Material

We have likewise observed that following anatomic repair of the esophageal hiatus alone, some patients continue to have symptoms of heart-burn or upper abdominal distress. Therefore, seven years ago, in an attempt to improve the overall results of operation for hiatus hernia, use of the composite procedure was begun on our service. Up to the present time it has been utilized in approximately 150 patients. Most of the patients were middle-aged or in the upper decades of life. There has been no operative mortality following the composite procedure. Several small recurrent hernias have developed in this group of patients, but in no instances has objective or subjective evidence of recurrent esophagitis occurred. Also, in a few patients, incompetency of the gastroesophageal mechanism still persists, but the addition of vagotomy with pyloroplasty has apparently served to eliminate the development of recurrent symptoms. It is our impression that the composite operation has produced postoperative results that are superior to those obtained by mere reconstruction of the diaphragmatic defect alone.

It is of interest that approximately one-half of the 150 patients had elevated values of gastric acidity prior to operation. In addition, the abdominal approach permitted us to remove a calculi-containing gallbladder in 35% of the 150 patients. Likewise, 25% of this series were bothered by an associated duodenal ulcer and were given definitive treatment for the ulcer (vagotomy and pyloroplasty). Of additional interest was the incidental finding of a neoplasm of the small bowel in 2 patients, which were treated by intestinal resection.

Operative Technic

The abdomen is entered through a generous upper midline incision. After dividing and retracting the suspensory ligament of the left lobe of the liver, an attempt is made to reduce the herniated cardiac portion of the stomach from the mediastinum. This can usually be done without difficulty unless the hernia is of long standing, or unless there is acquired shortening of the lower esophagus due to esophagitis with fibrotic changes. If the hernia is reduced first, there is less likelihood of injury to the gastric and esophageal walls when one attempts to encircle the lower esophagus and free it during subsequent manipulation. The distal esophagus is next freed from the surrounding structures and is encircled with a long Penrose drain. The free anterior wall of the hernial sac is next excised and bilateral truncal vagotomy performed. With the esophagus elevated anteriorly and to the left, by applying traction on the Penrose drain, the crural sling fibers of the right diaphragmatic crus are brought into

view. These fibers are thoroughly cleared of all areolar tissue and are approximated posterior to the esophagus with several interrupted sutures of #00 silk. Care should be taken only to approximate these muscular structures or else necrosis will ensue if the closure is too tight. The closure of this muscular sling should extend up to the posterior esophageal wall so only the tip of a small instrument may pass between the esophageal wall and the highest placed suture. If the esophagophrenic ligament or esophagogastric bundle is present, it should be sutured to the edge of the diaphragm with interrupted silk. The duodenum is next mobilized and a patulous pyloroplasty performed, using a single interrupted silk layer technic as described by Weinberg, or perhaps to insure even better gastric emptying, a Finney type pyloroplasty (side-to-side duodeno-antrostomy) may be carried out (Fig. 4).

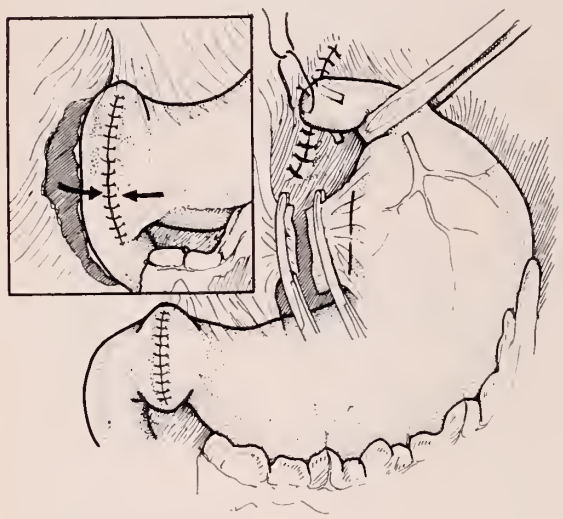


FIG. 4. Sketch showing bilateral vagotomy, hiatal hernia repair, and Mikulicz type pyloroplasty. In large defects sutures may also be placed in the diaphragm anterior to the esophagus. The esophagophrenic ligament is sutured to the diaphragm if available. Insert shows a Finney type pyloroplasty or duodeno-antrostomy.

Discussion

It has become increasingly apparent in recent years that esophageal hiatus hernia is a frequent cause of upper abdominal discomfort. Needless to say, however, before a hiatus hernia is incriminated as the cause of the patient's difficulty, a very thorough preoperative survey should be made of the entire digestive tract, biliary apparatus, cardiac and pulmonary systems.

The composite operation, as described in this communication, has been employed widely within recent years, and most surgeons believe its use should be continued since the results appear to be superior to those obtained by simple repair of the hiatal hernia alone. At a recent meeting of the Society for Surgery of the Alimentary Tract in Atlantic City, it was found that many members of the Society were enthusiastic with the present results obtained utilizing the composite operation. Actually, this procedure was perhaps first used by Berman[2] and reported in 1959. However, Quattlebaum has employed the operation for almost fifteen years with gratifying results.

There appears to be sound reasoning for utilization of the composite procedure. There is experimental evidence to show that pyloroplasty with vagotomy will reduce the incidence of esophagitis produced by rendering the esophagogastric junction incompetent. Indeed, Burford and Lisher[3] treated patients with hiatus hernia and an acquired short esophagus with pyloroplasty alone and observed the disappearance of esophagitis in their patients. Likewise, the occurrence of acid-peptic reflux, which follows the Heller procedure in certain instances, has been successfully managed by subsequent pyloroplasty. Some observers now prefer to combine pyloroplasty with esophagogastric myotomy in the treatment of esophageal achalasia. In the treatment of hiatus hernia, some prefer to combine hiatus hernia repair with distal gastric resection and vagotomy rather than pyloroplasty, with the idea of further reducing gastric acidity levels. Also, the utilization of a gastroduodenal anastomosis (Billroth I) following gastric resection serves to anchor the stomach pouch and lessens the likelihood of recurrence of the hernia.

When the composite operation was first employed on our service, it was applied only to patients with elevated levels of gastric acidity, those with a severe degree of esophagitis, or patients whose tissues would predicate a poor surgical repair. However, as experience has increased, it is now done on all patients with a *sliding* hiatus hernia who are subjected to operation. The addition of vagotomy and py-

loroplasty does not add appreciably to the operative morbidity.

A few observers prefer to repair the diaphragmatic defect through a left thoracotomy approach and employ transthoracic vagotomy. A pyloroplasty is then accomplished through a small right paramedial abdominal incision. It is our belief that this combined approach is unnecessary and that the abdominal avenue alone offers distinct advantages. The abdominal incision permits thorough exploration of the abdominal viscera, and coexisting cholecystic and duodenal ulcer disease may be corrected at the time. Likewise, in this age group a small number of patients will have other abdominal disease not anticipated prior to operation. The abdonimal approach is associated with less postoperative mortality and does not impose the burdens upon the respiratory and cardiovascular systems as does a thoracotomy. In this age group of patients, pulmonary and cardiovascular diseases are prevalent. Likewise, in our opinion, the presence of a recurrent hernia or the presence of marked obesity does not constitute a contraindication for utilization of the abdominal approach.

Summary

The use of a composite operative procedure in cases of sliding esophageal hiatus hernia has been described. This operation is directed toward correction of both the anatomic and physiologic aberrations which occur with hiatus hernia. The results of the composite procedure appear to be superior to those which take into consideration only the repair of the anatomic defect in the diaphragm.

References

1. Beardsley, J. M.: Transabdominal Repair of Esophageal Hiatus Hernia, Ann. Surg. 149:498, 1959

2. Berman, J. K. and Berman, E. J.: Balanced Operations for Esophagitis Associated with Esophageal Hiatal Hernia, A.M.A. Arch. Surg. 78:889, 1959.

3. Burford, T. H. and Lischer, C. E.: Treatment of Short Esophageal Hernia with Esophagitis by Finney Pyloroplasty, Ann. Surg. 144:647, 1956.

4. Clarke, J. S.: The Treatment of Hiatus Hernia by Hiatus Herniorrhaphy, Vagotomy and Drainage Procedure, Am. J. Surg. In Press. (Also see Discussion).

5. Handelsman, J. C.: Esophageal Hiatal Hernia, Surgery. 52:803, 1962.

6. Herrington, J. Lynwood, Jr.: Hiatus Hernia with Esophagitis. Treatment by Hernia Repair, Vagotomy and Pyloroplasty or Antrectomy, Ann. Surg. 151:812, 1960.

7. Herrington, J. Lynwood, Jr.: The Abdominal Approach for Repair of Esophageal Hiatus Hernia. Surgery. 52:419, 1962. (Editorial).

8. Herrington, J. Lynwood, Jr.: Treatment of Esophageal Hiatus Hernia. A Physiologic Operation for Esophageal Hiatal Hernia (Hernia Repair, Vagotomy and Pyloroplasty, A.M.A. Arch. Surg. 84:379, 1962.

9. Lord, J. W. and Imparato A. M.: Case for Transabdominal Repair of Esophageal Hiatus Hernia, J.A.M.A. 179:30, 1962.

10. Miller, F. A., Neto, H. and Sellers R.: Esophagitis Associated with Esophageal Hiatal Hernias, J.A.M.A. 183:1008, 1963.

Returned Workers: For the eighth straight year, the nation set a record for the number of disabled persons rehabilitated into productive jobs. Mary E. Switzer, commissioner of vocational rehabilitation, said 110,136 disabled persons were returned to jobs in fiscal 1963. About 19,000 of that number had been receiving public assistance or living in tax-supported institutions. *(AMA News, Sept.* 30, 1963.)

The author describes his method of fusing a spine and the additional use of an instrument, in the correction of idiopathic scoliosis of adolescence.

Spinal Fusion in the Treatment of Idiopathic Adolescent Scoliosis*

PAUL R. HARRINGTON, M.D., Houston, Texas

The treatment of scoliosis and spine instability by spinal instrumentation was presented to the American Orthopaedic Association in 1960.[1] At that time, generalizations were made in principle only. That presentation was the result of twelve years of research and the application of varying mechanical metallic instruments to 129 human spines in all forms of curvature and instability. Although the results were very encouraging, several problems such as pseudoarthrosis, erosion and fracture of the instrument still existed.

The development of spine instrumentation over the past three years has produced a very useful tool in the armamentarium of treatment of scoliosis by the intensive study and evaluation of 432 surgical cases. These 432 cases were retrieved from 874 cases of spine malformations. Three hundred and thirteen patients of this pool of 874 cases are being treated by nonsurgical measures. I am sure a portion of these 313 patients will need to be operated upon eventually to meet the high criteria of satisfactory results established by my biomechanical concept of the spine. This criterion is the Harrington factor of five and its implied mechanical and structural significance.

To this current date in 1963, all presentations on this subject have been a pooling of all the cases of spine instrumentation regardless of diagnosis and etiologic factors. From this pooling, erroneous opinions have been deducted. Enough information has been compiled to separate the various categories of spinal malformations and reduce the erroneous deductions which are being made by case representation.[1] The primary function of instrumentation is to correct and hold the spine for a reasonable *length of time only.* It is here that the worth of the instruments stop.

In my opinion, the instruments have their most specific application in the adolescent scoliotic having idiopathic disease. Major issues such as: (1) correction, (2) maintenance of correction, and (3) minimal symptoms in subsequent years, can be well outlined and established in using the ideal application of instruments. From this stable format of procedure the treatment and management in the bizarre case, with its variables from the ideal stable procedure, tends to stimulate sound judgment in the adaptation of treatment to the variable that exists. Therefore I shall limit my discussion to the ideal case—the adolescent scoliotic patient with idiopathic disease.

The Problem of Scoliosis

Fortunately, such patients comprise over one-half of all the scoliosis problems presented to the orthopedic surgeon.

The classification of James[2] regarding idiopathic scoliosis as an orthopedic problem, we have the following:

(1) Infantile 0-3 yrs.
(2) Juvenile 4-9 yrs.
(3) Adolescent 10-14 yrs.
(4) Adult 15-19 yrs.; 20-30 yrs.; 31-40 yrs.

The reason for this classification is that each patient falling into one of the four ranges of age requires varying degrees of treatment in intensity and modality. The extent and modality of treatment is defined by the soundness of the orthopedic surgeon's judgement. When maturity is reached, the final result is a direct reflection on the judgement of the orthopedic surgeon, his acquired armamentarium and his ability to apply both effectively. Results cannot be determined by degrees alone unless a universal criterion is established,

*Read at the meeting of the Tennessee State Orthopaedic Society, April 6, 1963, Knoxville, Tenn.

and none exists today. In general, a good result is one when a scoliotic reaches maturity with a spine as straight and stable as possible. With our present knowledge of spinal mechanics and the many variables affecting the final results, little else can be said. We can be more accurate, however, by differentiating between types and age groups of scoliotic patients. Their degree of correction is a fair indication of the results, providing the degree of correction is held through several years and into maturity.[3]

In the patient with idiopathic scoliosis, the etiology of the disease lies in the physiologic integrity of the endochondral zone of ossification of the load transfer areas of each vertebral segment. The specification of a growth center anywhere in the body is to reach maturity in 14 to 18 years with an inherent potential form (bone) without deformity. To accomplish this end the growth center, which is the dynamic part of a growing structural system, has to withstand the insult of: (1) the varying forces required by motion; (2) the variation of growth stimulation; (3) the gradual increase of total body mass; (4) the variation of nutritional intake; (5) the variation of physical environment of the host, such as weather, season, etc.; and (6) the variation created by toxic elements of diseases acquired during this long 14 to 18 years of growth.

The normal infant has this physiologic integrity of the growth centers. To state it in another way, the endochondral ossification zone has more than the survival biophysical chemical makeup; indeed 300% more if we can draw conclusions from other systems on survival. For instance, 66% of the lungs can be removed without affecting resting physiologic respiratory function; one kidney can be removed and physiologic balance can be maintained; 80% of the liver can be removed and no basic deleterious change takes place in digestion. Recent research has pointed to the collagen fraction of the endochondral matrix as being a probable basic cause of structural breakdown in the growth center. Assuming this is true, or even assuming that perhaps some other mechanism is true, it is reasonable to assume that varying degrees of involvement may be expected. If the "all or none" law is not valid in this consideration, then the earlier the deformity or dysfunction starts in life the more severe the overall problem. On the first inspection of this statement it sounds reasonable, but qualifications or specifications must be made before such a statement can be considered valid; even though we know from observation that in the main, the earlier in life the scoliosis is manifest, the more extensive the final deformity will be.

The specifications I speak of are—age, mass, force, time and adaptation, plus the extent of the basic pathologic involvement. Let us consider each of the six points in a general way. All are interrelated. Age, time, body mass, force of motion (activity) and extent of pathologic involvement, all imply greater values and we are discussing a structural system which is affected by greater stresses over time. We know there is an adaptation of all physiologic processes during growth to the point when dysfunction exists. This is the law of dynamic equilibrium which is a property of living matter, i.e. to adapt or adjust to meet a stress situation which is not in equilibrium. So in order to create equilibrium we see changes in structural potential (growth rate), precocity of sexual development, changes in psychic interest (reduced activity), fatigue, lethargy and reduced activity, to speak of a few.

Therefore, qualification of the statement that "the earlier the idiopathic, scoliotic deformity starts; the worse the end result" untreated makes me believe the reverse may be just as true. Certainly, modification of the statement is indicated.

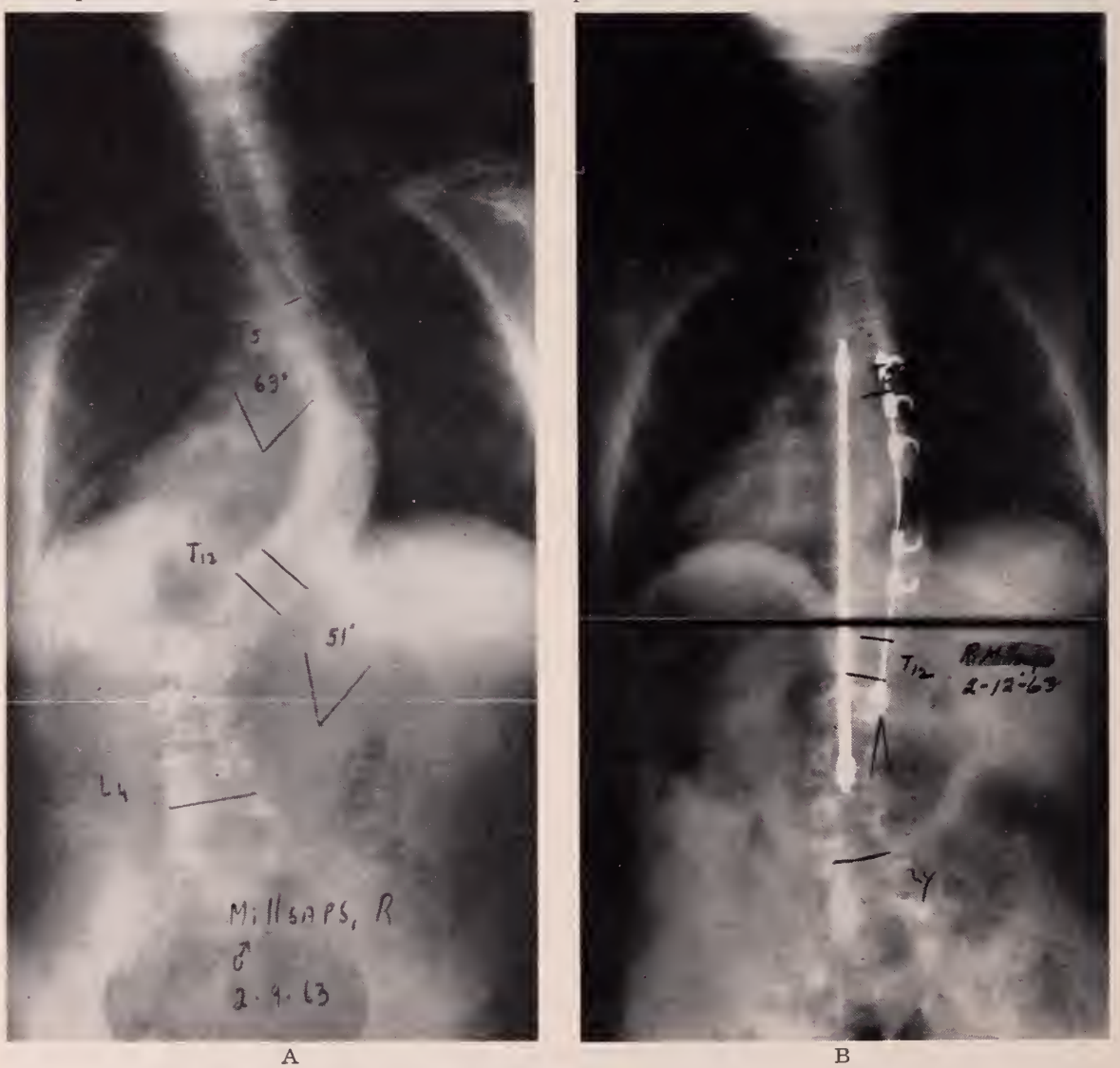
The point of all this discussion is that regardless of the situation, be it infantile, juvenile or adolescent idiopathic scoliosis, no stereotyped course of events will take place. Judgement must be qualified by intelligent observation over time on each particular case. Classification is therefore of great assistance in this complex problem.

Management by Instruments

The reason that the adolescent patient with idiopathic scoliosis offers the ideal example of scoliotic management by instrumentation is that the instruments are a

static system and growth is not a major factor for the adolescent is reaching the cessation of growth. Another reason is that spinal fusion is more assured with better immobilization of the part to be fused. Instruments provide this immobilization and spinal fusion insures longevity of results. Therefore the adolescent scoliotic situation is tailor-made for instrumentation or vice versa. The warning here is that there is no place for complacency. No procedure is worth its weight if strict adherence to basic principle is disregarded.

The primary function of instrumentation is to correct and hold for a reasonable *length of time only.* This function has not been paralleled. (Fig. 1.) It is here that the worth of instruments stop. The final results lie in the establishment of a total bone mass capable of withstanding the activity and stress of a lifetime. The defects in the present design of spine instruments have gradually been eliminated as: (1) the unnatural situation of bone and metal under pressure at contact points causing erosion has been minimized to the point of being of no significance; (2) the disengagement of the instrument is a matter of technic and postoperative management. (Fig. 2.) Therefore, all of the undesirable characteristics of spine instrumentation are reduced to a minimum. The only question in treating an adolescent patient having idiopathic scoliosis to obtain an excellent final



A B

FIG. 1. A 17 year old white boy with idiopathic scoliosis. Roentgenogram reveals a right thoracic curvature of 69° (A). (The photographs of this patient's operative procedure are seen in Figs. 8, 9, 10 and 11.) Postoperative roentgenogram (B) reveals curvature corrected to 18° by instrumentation. Fusion was accomplished by Harrington dowel facet fixation, decortication and autogenous iliac bone.

ACTIVITY AND CHECK-UP PROGRAM

ACTIVITY	MONTH	CHECK-UP
OPERATION — LOG ROLL HOME — LOG ROLL		X-RAY CAST
	1	
	2	
START PROGRESSIVE STANDING WALKING PROGRAM - NO SITTING	3	
WALK ½ MILE THREE TIMES A DAY	4	X-RAY CAST OFF
RESTRICTED NORMAL LIVING RETURN TO SCHOOL	5	
LESS RESTRICTED ACTIVITY NO RUNNING, JUMPING OR TUMBLING. REST 20 MINUTES THREE TIMES A DAY	6 7	
LESS RESTRICTIONS NO ATHLETICS OR PHYSICAL ED.	8	X-RAY
	9	
	10	
	11	
NO RESTRICTION BUT ATHLETICS	12	X-RAY

MOBILIZATION PROGRAM

Name John Doe Surgical Date January 1st, '63

Cast Date January 12, '63 Discharge Date January 14, '63

From the date of surgery until 10 weeks after you are home, your activity is log-roll only as in the hospital. Continue deep breathing, arm and leg strengthening exercises as shown in the hospital.

ACTIVE PROGRAM: (walking and standing only in your cast)

The objective of this active program is to build strength, good posture, and endurance and not to place excessive strain on the bone mass as it develops into strong mature bone. This takes increasing, controlled pressure over time (in months, not days) to accomplish the desired end of gaining stability to the spine which is the paramount objective of spinal fusion.

Your walking program begins April 1st, '63 and is as follows:

1. Ambulate 3 times per day for 5 min. for 3 - 5 days, then
2. " " " " " 10 min. " 3 - 5 days, then
3. " " " " " 20 min. " 3 - 5 days, then
4. " " " " " 40 min. " 3 - 5 days.

During this active period you are walking, standing or lying. No sitting is allowed until after walking for 40 minutes 3 times per day; then you may sit for meals and on the commode only. Then begin walking one-half mile 3 times per day for 3 - 5 days. At the end of 14 weeks from your surgical date, you may walk stairs if necessary, and short car rides are permitted. When this program of walking one-half mile is completed, you are to have a 36" standing A-P x-ray of your spine made while still in cast and mail it to me. After reviewing your x-ray, I will notify you when to have the cast removed and give further instructions for the next 3 to 6 mos.

It must be clearly understood that the operative procedure and spine instruments hold the correction for a reasonable length of time only. It is the formation of a strong mature bone mass (spinal fusion) that will hold the correction obtained by instruments for years on end. A mature, strong bone fusion mass is prepared during the operative procedure, but the actual successful formation lies in the healing of the wound and with development of the bone mass which takes time, and this is months of time. The above instructions are to ensure the basic healing and development of a successful bone grafting mass. The months that follow the removal of your cast require a progressive, but very slow, activity program without excessive stress as caused by running, jumping and playing atheletics. Care in activity is recommended till one year from the date of the surgical procedure in order to make sure that nature or your healing powers develop a stronger and stronger, and thus a mature bone fusion mass.

Mobilization program for first four months is given the patient on dismissal.

FIG. 2. Mobilization Program.

result is to acquire a total adequate fused mass of bone.

The statement "total adequate bone fusion mass" has more implications than meets the eye or enlightens the brain. It is important here to explain its significance in the final result.

The word "total" refers to mass dimension, i.e., length, width and depth. A bony mass needs dimensions to do a job and no more trying requirement is experienced than in the fusion of a scoliotic spine. One must remember that the forces required to withstand the stresses of motion and activity in the scoliotic spine are greater in all planes than in the normally aligned spine, i.e., (tilt, compression, tension and torque). One must remember too that the fusion mass is only attached to the posterior elements, and in considering that compression loading of all spines is basically the function of the body of the vertebra, the question becomes more acute. The answer to this problem lies in the mechanics of the deformed spine. As the scoliotic spine becomes deformed, the concave facets become the major compressed load area in combination with the concave edge of the body. The major site of the fusion mass now becomes more obvious in order to re-

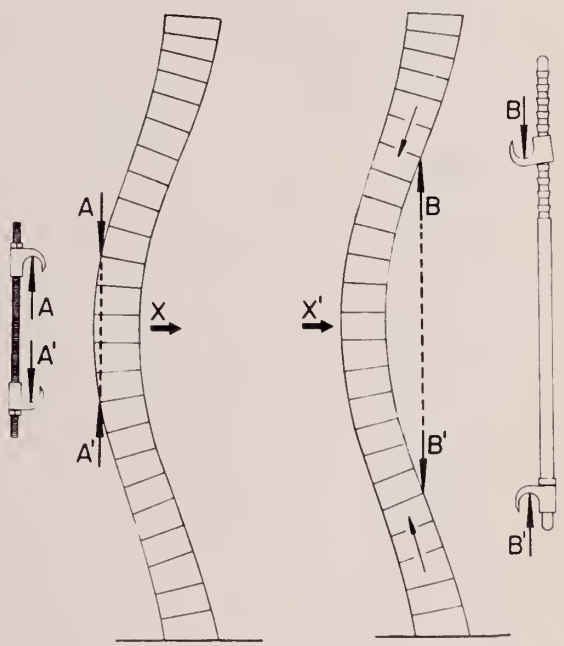


FIG. 3. A graphic representation of a deviated spine which is always present in scoliosis. The forces of correction are noted by the heavy arrows applied to the spine segments as well as the instruments. The smaller arrows represent the eccentric loading of the spinal column as a whole. When the fusion mass is required to counteract these forces, this eccentric loading combined with the corrective force which has to be maintained, the placement of autogenous bone on the concave side is mandatory.

align the stresses of the fused scoliotic spine. (Fig. 3.) We must not forget the known fact that bone grafting and fusion *will not take place* under forces of tension. Under tension a spinal fusion mass is jeopardized and is most likely to develop pseudoarthrosis when repeated motions of torque or tilt are present, particularly while the bony mass is forming. Consideration here then, relative to dimensions are as follows: include the extent of the instrumentation and just beyond the width of the instruments and more bulk or depth on the concave side as shown diagramatically. (Fig. 4.)

The word "adequate" refers to the exposed area to be fused in the scoliotic spine. One must keep in mind that the vertebrae are segments with moving tissue and surfaces between them, and if one wishes total continuity of a bony mass to do a tremendously required job, all pertinent surfaces and intersegmental tissue must be removed and bone must replace it. The best way to insure intersegmental continuity of the bony mass is to eradicate the other tissues and replace them with bone (doweling technic). From a mechanical standpoint and to utilize the principles of compression in bone healing, as established by Charnley[4] and Eggers,[5] this is best done by precision fitting of the bone mass into the intersegmental soft-tissue contact points. Obviously this precision fitting must be done under optimal corrective position of the segmental parts involved. (Fig. 5.)

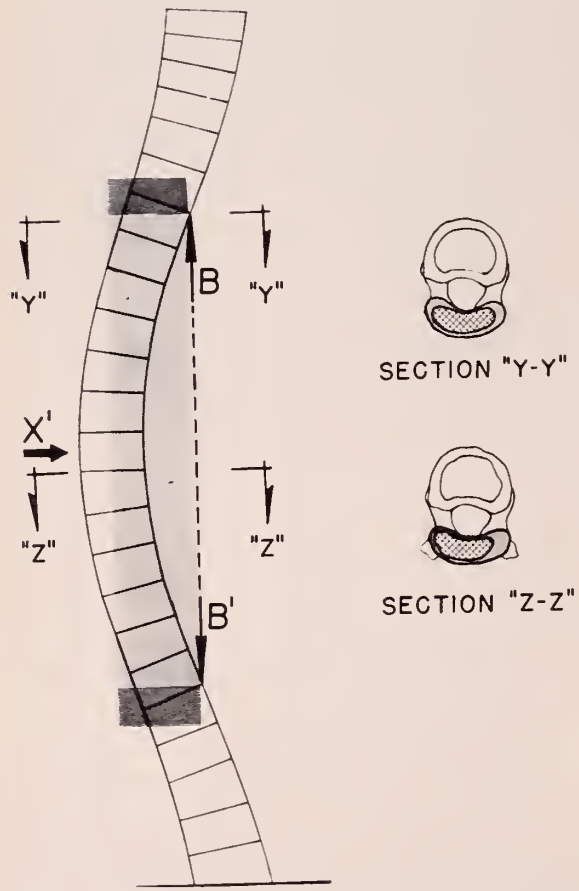


Fig. 4. Using the deviated spine as in Fig. 3, the fusion mass must be built up over the spine as demonstrated by the shaded area. The cross-sections represent the mature bone fusion mass showing its cortical variations and medullary trabeculated internal structure. Both elements, the cortex and the stress trabeculations must have continuity with each segment in the fusion mass to ensure a total adequate spinal fusion mass.

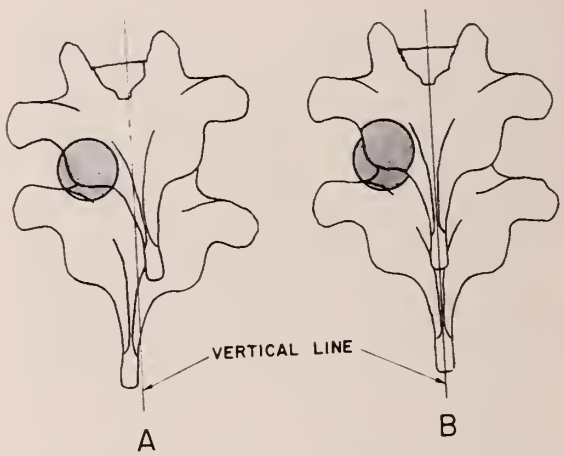


Fig. 5. In using a facet doweling technic, this figure represents the error that can be made if the dowel bed is cut before the correction is obtained. When precision fitting is an important part of the success of bone continuity, it becomes obvious that the correction by instrumentation must be obtained before the dowel bed is cut. This is impossible many times with the distraction force in place. To overcome this, an outrigger distraction force is applied obtaining full correction and then the dowel bed is cut.

The term "bone mass" implies size, but I prefer visualizing it as the character of the mass of bone to become eventually a functional bony fusion. To explain this more fully—in the foregoing passage under the word "adequate" I discussed the removal of all soft-tissue. It is my belief that the real efficient functional bone mass has a natural or normal bone structure. (Fig. 4.) The more closely this mass resembles the structure of living functional bone, the more efficiency and strength it possesses. I therefore believe the cortex and stress trabeculations of the existing bone segments on the concave side in particular should be removed, so when the bone mass

is formed in the early phases of healing an internal structure of trabeculated bone can form in the mass without the barrier of lamellar bone between the bone mass and the attaching surface of each segment. (Fig. 6.)

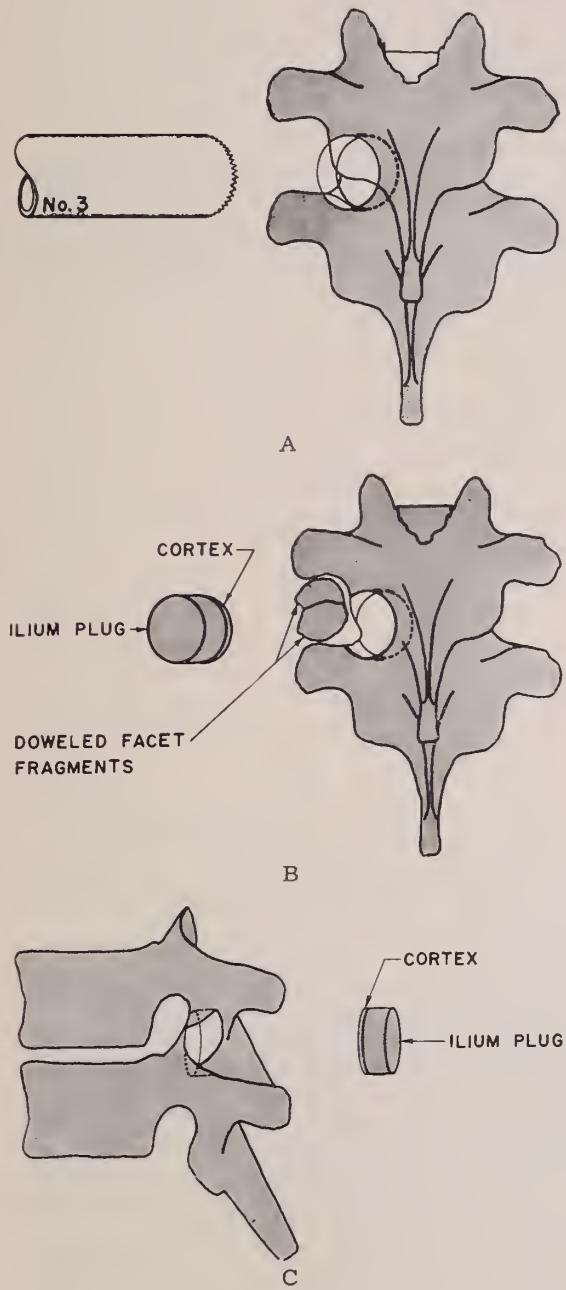


FIG. 6. (A) demonstrates the angle and direction of the dowel cut in a slightly oblique plane which must include the inferior thoracic facet and the base of the superior facet below. (B) shows the doweled facets lifted out and moved laterally into the intersegmental space between the transverse processes. The plug obtained by a larger dowel from the donor site (usually ileum) is shown ready to be driven into the doweling bed. Note the cortex of the autogenous dowel is placed in the bed first as seen in the lateral view (C).

A totally potential adequate bone mass becomes formed very early in the healing process of the postoperative state, but maturity is acquired in stages. (Fig. 7.) In an

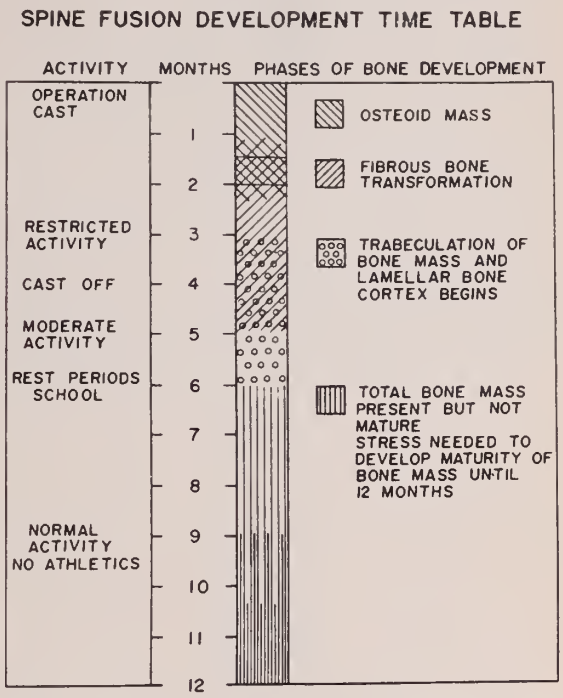


FIG. 7. This graphic representation of the healing of a bone mass and stages of maturing structural development of the bone mass is presented in a time-table and is separated in stages. These stages are intentionally represented to imply structural strength as maturity of the mass is reached.

adolescent, I believe an osteoid mass is formed by three weeks. An osteoid mass has no structural strength beyond that of putty or glue. Transformation of this osteoid mass into a rough fibrous bone mass with much better structural properties than osteoid tissue takes place in the next six weeks. Fibrous bone is not structurally strong. Trabeculation and general medullary bone conformations are now only fairly well formed with stress alignment and physical function of the trabeculations. The confining surface of the bone mass is defined by the periosteum which forms a limiting canopy over the bone mass. This point of development of the bone mass, i.e., (1) total fibrous bone mass with trabeculations, and (2) lamellar cortical structure has been reached by the twelfth week in the adolescent. However, due to the lack of linear stress usually developed by gravitational loading, the spinal fusion mass (patient has not been standing) is not adequate in

strength to withstand relentless loading without minute break-down and possible pseudoarthrosis formation. I believe a gradual gravitational loading of the bone mass is indicated here and should take approximately six weeks. This gradual progressive loading of the bone mass over six weeks develops the bone mass into a stress orientated trabeculated bone mass intersegmentally attached with thickened, but not totally adequate lamellar bone cortex. This total, stressed, corticated system, although immature in structural potential, needs only time in which to reach a matured state of totally adequate fusion mass. This is accomplished in nine to twelve months.

Now we see what is meant by final results of a totally adequate mass of bone fusion. It is immediately apparent that the sequence of postoperative management in activity is of prime importance to accomplish good final results that are not only gratifying, but exhilerating. To accomplish this end I will include my postoperative mobilization program.

After one year, the only restriction on the surgically instrumented and fused scoliotic spine is—no athletics. Each patient is offered the choice of having the instruments removed or to let them remain after a period of five years. The patients who have reached this postoperative phase have no desire to remove the instruments.

The results of instrumentation of the adolescent scoliotic spine by the above recommended procedure of Harrington dowel technic and autogenous bone (ilium) can only be reported in part. From our observation of six months to a year, over 80% have shown no loss of correction and no evidence of pseudoarthrosis. However, the time interval of observation is too short to make a positive statement.

The Procedure

The surgical procedure to accomplish the intersegmental doweling in the corrected position is as follows. The posterior elements of the spine are exposed to their extreme lateral borders. All visible intersegmental tissue is removed by curette leaving the ligamenta flava intact. The vertebrae are identified by using T-12 and its unique posterior anatomic structure. The distraction hooks are placed in their preplanned sites as shown in figure 8. An outrigger distraction force is applied correcting the spine by the same sequence.

An outrigger distraction force is applied to the distraction hooks and correcting force is applied in the same sequence as described above until near maximal correction is obtained. The facets on the concave side of the spine intended for fusion are doweled by a No. 3 doweling reciprocating saw. (Fig. 9.) Number 4 doweling plugs are obtained from the ilium and driven into the dowel holes which have



FIG. 8. Operative site of patient in Fig. 1. The outrigger is not shown here and at the left end of the wound in the lower border a distraction hook is seen. On the concave side, the compression system is in place and corrected. The spinous processes have been removed.

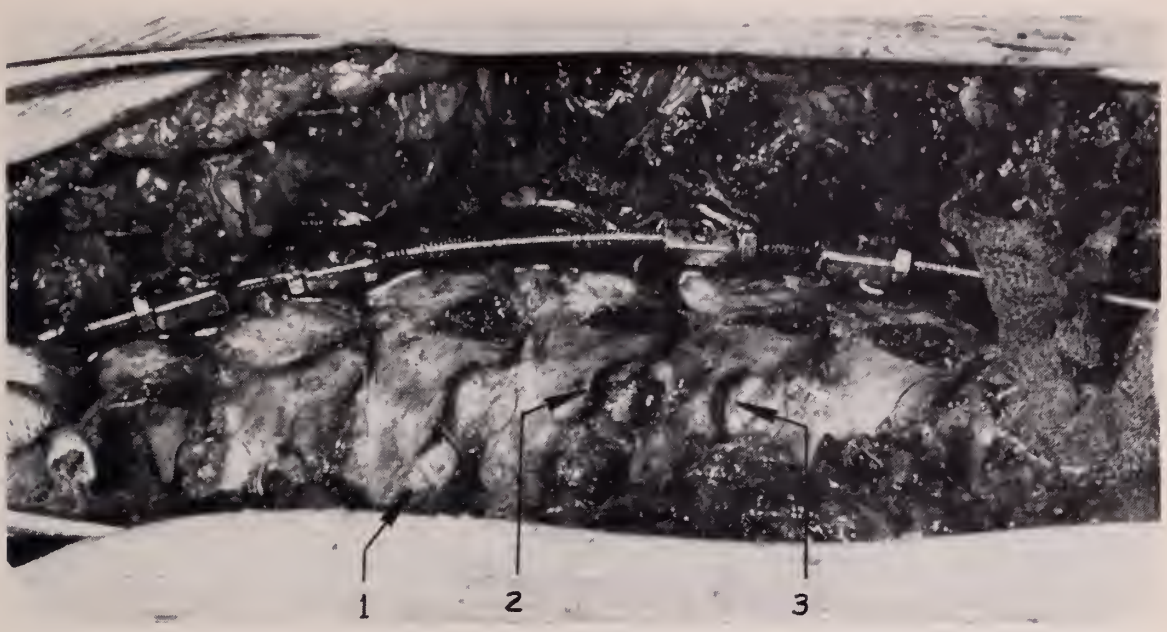


FIG. 9. The operative site showing the dowel cuts on the concave side over the facet articulations. Arrow 1 shows the inferior facet of a vertebra laid laterally into the interspace between the transverse processes. The superior facet of the vertebra below has not been removed as yet. Arrow 2 reveals the dowel bed totally removed and laid laterally into the intervertebral space affording bone continuity between the transverse processes. Arrow 3 points to the buttress made by the dowel bed cut which engages the autogenous dowel when it is inserted.

been prepared in the facets by the No. 3 dowel saw. Please note that the dowel cut made in the facets on the concave side are made in a plane and a level of intervertebral spacing so a buttress is obtained when the dowel is lifted out. (Fig. 9.) It is recommended not to take these cuts out, but to leave them attached to the abundant capsule which very easily moves laterally with them, not only carrying the vascular supply to the capsule of the facet, but affords bone to be placed between the transverse processes of the vertebrae being fused. (Fig. 9-10.) The dowel plug obtained from the

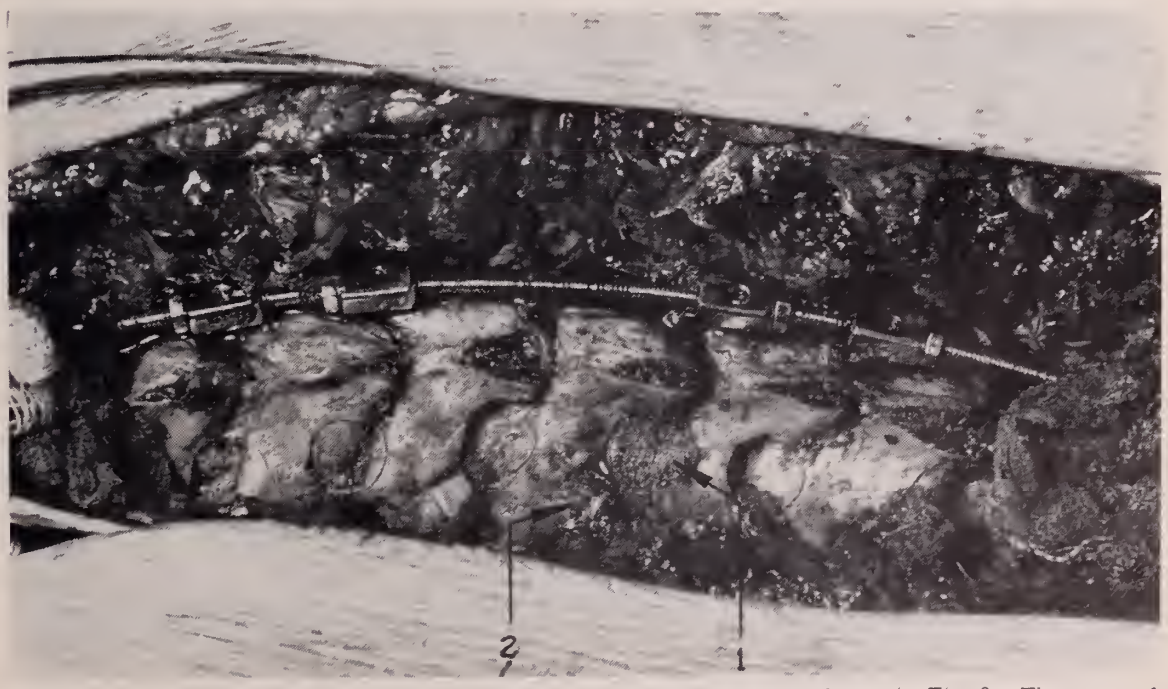


FIG. 10. A dowel plug which has been placed in the prepared bed as shown in Fig. 9. The arrow 1 points to the dowel in place. Arrow 2 points to the removed facets laid in the intervertebral space between the transverse processes.



FIG. 11. All dowel beds have been plugged with an autogenous ilium dowel. The distraction force is in and the spine is now ready for decortication procedure following which medullary autogenous ilial bone will be packed over the concave side including the dimensions of the instruments as is recommended in Fig. 4.

ilium is now turned upside down, i.e., the ilium cortex is placed in the dowel hole first and driven into place by a broad-nosed punch. When all the intersegmental dowel cuts are replaced with dowel plugs from a donor site, the outrigger distraction force is removed. A conventional distraction force bar is placed in the two distraction hooks from which the outrigger was removed and the spine is corrected again. (Fig. 11.) All instruments are inspected and corrected to maximum tension without crushing their purchase sites. The instruments are then locked and the cortex of all exposed vertebrae are lifted off with an osteotome. This procedure of decortication affords bone to increase the total bone mass as well as to eliminate the cortex of each segment as a barrier for segmental tie-in to the total bone mass. Medullary bone from the ilial donor site is packed into the decorticated bed on the concave side and at both ends. (Fig. 4.) Prepared lamellar bone chips which are obtained from the spinal segments in decortication and those removed from the ilium are now packed the total length of the spinal fusion mass on the concave side only. This completes the intersegmental doweling decorticated procedure.

Summary

Spine instrumentation in the management of scoliosis is most ideally applied to the moderately involved adolescent patient with idiopathic scoliosis. The primary function of instruments is to correct and hold for a reasonable length of time only. It is here that the worth of instruments stop. Spinal fusion is essential to preserve the excellent correction which is obtained by the instruments. A total spinal fusion of any corrected spine is not an easy result to acquire. In fact, it is extremely difficult. My experience with 432 patients with scoliosis treated surgically has afforded the development of a dowel technic in establishing a total spinal fusion mass that appears to have real merit by fulfilling the following criteria: (1) to reduce the incidence of pseudoarthrosis; and (2) to reduce the loss of correction after reactivation of the patient in the convalescent stage.

The importance of gradual mobilization (Fig. 2) of the postoperative patient is emphasized and the correlation with the development of the bony fusion mass has been made.

References

1. Harrington, Paul R.: Treatment of Scoliosis: Correction and Internal Fixation by Spine Instrumentation, J. Bone & Joint Surg. 44-A:591, 1962.

2. James, J. I. P.: Modern Trends in Diseases of the Vertebral Column. Paul B. Hoeber, Inc., New York, 1959.

3. Harrington, Paul R.: Spine Instrumentation

in the Management of Scoliosis: An Evaluation of More Than 200 Cases. South. Med. J. (In print.)

4. Charnley, John C.: Positive Pressure in Arthrodesis of the Knee Joint, Brit. J. Bone & Joint Surg. 30-B: 1948.

5. Eggers, G. W. N.: The Influence of the Contact-Compression Factor on Osteogenesis in Surgical Fractures, J. Bone & Joint Surg. 31-A: 693, 1949.

Further Observations on the Natural History of Isolated Ventricular Septal Defects in Infancy and Childhood; Serial Cardiac Catheterization Studies in 75 Patients. Arcilla, R. A., Agustsson, M. H., Bicoff, J. P., Lynfield, J., Weinberg, M., Fell, E. H. and Gasul, B. M. Circulation 27:560, 1963.

Seventy-five patients with isolated ventricular septal defects were studied—36 males and 39 females. Thirty-nine were under 1 year of age, 19 between 1 and 3 years, 14 between 3 to 10 years, and 3 over 10 years at the time of the first cardiac catheterization. Second cardiac catheterizations were done one to seven years later in 68 patients, and a further 7 had a third cardiac catheterization two to five years after the second study.

In the older children and adolescents, the oxygen consumption was determined during the studies; in the infants and young children it was assumed. Pulmonary blood flows were expressed as pulmonary-systemic flow ratios, and total pulmonary resistances instead of pulmonary arteriolar resistances were calculated.

Patients were divided into three groups on the basis of the pulmonary artery systolic pressures found at the first catheterization: Group I with normal pressures, Group II with pressures between 30 to 60 mm. Hg., and Group III with pressures above 60 mm. Hg.

Group I: 25 patients. Only 1 showed a mild increase in pulmonary vascular resistance between studies. In the others the pulmonary artery pressures remained normal and unchanged.

Group II: 28 patients. 25 initially had normal or diminished pulmonary vascular resistances, the increased pulmonary artery pressures being on the basis of large pulmonary blood flows. 21 were babies under 2 years of age; of these 71% showed a fall in pulmonary artery pressure and 81% showed a reduction in pulmonary blood flow. In only one was there a slight increase in pulmonary vascular resistance. In 4 children over 4 years of age, no significant hemodynamic changes were found between studies.

Group III: 22 patients. 10 had normal, 7 had moderately elevated, and 5 markedly elevated pulmonary vascular resistances initially. In the 12 babies under 2 years of age, resistances fell in 33%, remained unchanged in 58%, and in only one was there a moderate increase. By contrast were 5 children over 5 years of age in whom high initial pulmonary resistances increased in 3 and remained unchanged in one.

In 14 children aged one month to 2½ years, in whom a left to right shunt had been present initially, 8 underwent spontaneous functional closure of their ventricular septal defects, and 6 had minimal residual shunts which needed selective dye indicator studies and left ventricular angiocardiograms for their detection.

The natural history of ventricular septal defects and the therapeutic significance of these findings are discussed. (Abstracted for the Middle Tennessee Heart Association by C. Gordon Sell, M.D., Nashville.)

CLINICOPATHOLOGIC CONFERENCE

Baptist Memorial Hospital*

Aneurysm of Hepatic Artery

Clinical Summary. The patient was born on Aug. 6, 1898. She was first seen on April 18, 1933 because of abdominal pain which radiated to her back and had been diagnosed by her family physician as due to ureteral stone. However, x-ray studies failed to show stones, and the I.V. pyelogram was thought to be normal. She also complained of nervousness of 6 months' duration, inability to sit still, cold hands and feet, losing weight, a rapid heart, feeling exhausted, and anorexia.

Review of systems showed that she had urinary frequency, dysmenorrhea, and almost everythnig she was questioned about.

Physical Examination. She weighed 105 lbs. There were no abnormalities other than enlargement of the uterus and tenderness in the right adnexal region. X-ray studies showed the gallbladder to have poor function and was unusually large.

The gallbladder was removed on June 19, 1933 and was said to show no stones but was unusually large and had thick walls. The operation was extended to include a low midline incision for excision of a former scar and liberation of intestinal adhesions. The uterus was not removed; the round ligaments were shortened.

After this operation the indigestion cleared up and she felt better. However, she continued to complain of pelvic difficulty, and therefore in Oct. 1933, a total hysterectomy, a left salpingo- oophorectomy, and transplantation of the left ovary beneath the fascia on the right, midway between the umbilicus and the symphysis, were done. It was noted that the appendix and gallbladder had been previously removed.

In Jan. 1934, the patient was given thyroid and ovarian tablets for her artificial menopause. The following month she was seen for nervousness, and her physician thought she was becoming addicted to opiates. On Aug. 29, and Oct. 8, she was in automobile accidents without any serious injury but with aggravation of her nervous tension. On Nov. 12, 1934 she was seen because she had fallen and injured her ankle. X-ray films showed a fracture and she was referred to an orthopedic surgeon for management. She was seen several times in 1935 for nervousness and headache.

On Jan. 10, 1936 she was treated for a violent headache; she was afraid of losing her mind. On July 12, 1937 she was seen in the office for abdominal soreness, saying she was taking no medications. Her weight was 109 lbs. She continued to complain of abdominal pain, made frequent visits to the office in the spring of 1938, and on April 13, was admitted to the hospital for Wangensteen suction because of intestinal obstruction. She improved without operation but returned in September, 1938 with another attack diagnosed as partial intestinal obstruction, and was again relieved by Wangensteen suction and conservative treatment. In the spring of 1939 she was again given thyroid for her nervousness.

In the spring of 1940 another attack of intestinal obstruction was relieved by Wangensteen suction. In the spring of 1941 she was evaluated with many laboratory and x-ray studies. It was decided that if she were operated on she would feel no better. In April, 1942 she was in the office and stated that her local physician was giving her ¼ gr. morphine every evening and had been doing so for the past 6 months. It made her feel a lot better, though she was very nervous and wanted more drugs. In May and October, 1942 she was hospitalized for abdominal pain and Wangensteen suction was used again. In the spring of 1943 she entered the hospital for another attack of abdominal pain which occurred 3 days after a G.I. series. In July, Oct., and November, 1943 she was hospitalized for abdominal pain. In Nov. 1944 she was seen again for abdominal pain but not hospitalized.

She was not seen again until July, 1954 when she came in for severe dizziness. She still had difficulty with abdominal pain limited chiefly to the left lower quadrant. G.I. series done at this time was considered within normal limits. In May, 1955 she came in complaining of pain in the right ear. No important disease was found in this organ but she also complained of her abdominal difficulty and poor appetite. It was noted though that she had gained to 157 lbs. Studies in the spring of 1955 included an x-ray examination of the skull and cervical spine, and a nose and throat consultation. The only organic disease found was some narrowing of the 4th, 5th, and 6th interspaces of the cervical vertebra with considerable hypertrophic spurring. In Sept., 1955, cervical traction was used with considerable relief of pain. When her husband came to take her home she had another nervous spell and had to be returned to the hospital and given codeine to make her comfortable. After a few days she was discharged again, but returned within 5 days because of abdominal pain which caused her to flex her thighs on the abdomen to get relief. All studies done at this time were negative for organic disease. Her husband's alcoholism was thought to be the cause of much of her trouble.

In Oct., 1956, she was seen again because of poor appetite and abdominal pain. Her weight was 150½ lbs. Studies at this time showed some narrowing of the intervertebral spaces between the last lumbar vertebra and the scrum. A herniated fat pad was noted over the sacroiliac region and was removed. Pathologic diagnosis was lipoma. In Dec., 1956, she was in the office complaining of

*From the Departments of Medicine and Pathology, Baptist Memorial Hospital, Memphis, Tenn.

From the Executive Director

TMA MEDICAL DIGEST

News of Interest to Doctors in Tennessee

1964 Annual Meeting—TMA

● The 129th Annual Meeting of the Tennessee Medical Association will have a different format from that of years past. With the hope of increasing attendance, the change in format is expected to enable a still larger number of physicians to attend all of the Memphis meetings set for April 12-15, 1964.

The 1964 meeting will be held from Sunday through Wednesday. Plans already are shaping up for Tennessee physicians' big meeting of the year. The majority of the Association's meetings which will consist of the organized specialty societies meeting concurrently with the Association—will be held on Sunday, Monday and Tuesday. In addition, Boards, Councils, Committees will also be meeting during the session. Only one general session will be held, that on Wednesday morning, April 15.

House of Delegates

● The first session of the House of Delegates is scheduled for 1:00 P.M. Sunday, April 12. Reference Committees will meet on Monday, April 13th. The second session of the House will be held on Tuesday morning beginning at 9:00 A.M.

Specialty Societies

● Specialty Societies and related medical organizations will hold meetings on three of the four days of the annual session. Altogether, seventeen groups will present programs. On the final day, Wednesday morning, April 15, two symposiums will be presented—one on "Basic Physiology" presented by the Society of Anesthesiologists and the Tennessee Thoracic Society. A symposium on "Trauma" sponsored by the American College of Surgeons and the State Society of Plastic Surgeons will be presented. Industrial exhibits will be open all day on Monday and Tuesday and until noon on Wednesday.

It's Time for Election of Officers And Delegates

● County Medical Societies are urged to follow the provisions in the TMA By-Laws, adopted by the House of Delegates, requiring County Societies to elect officers and delegates and report the names of those elected to the Tennessee Medical Association by January 1st preceding the annual meeting. The secretaries of County Societies have been forwarded a questionnaire and have been requested to submit names of newly elected officers and delegates from the respective County Societies in the state. It is urged that all societies conduct their elections early, before the end of December.

TMA Testimony Before House Ways and Means Committee

● The Tennessee Medical Association presented a statement to the House Ways and Means Committee on November 21st stating that existing programs in Tennessee obviate the necessity for passage of any further federal legislation in the area of health care. Presented in behalf of the some 3,000 members of the Tennessee Medical Association, the statement stated that existing federal, state and local health care programs, as well as voluntary health insurance, are presently providing adequate protection for the totally indigent, medically indigent, and those able to care for themselves. Strong support to the Kerr-Mills Medical

Assistance to the Aged Program was given. It was pointed out that the Tennessee program has been expanded five times since July 1, 1961 to provide greater benefits for those over 65 in need of medical care.

Reasons for Opposition

● The Association said it was opposed to King-Anderson type legislation because "it is staggeringly costly since it provides benefits for all persons over 65 regardless of financial status. The heavy tax will fall on those persons least able to pay". By giving the federal government major responsibility for the health care of non-needy persons—and providing services rather than cash benefits—the Social Security financed type of plan would radically alter the fundamental concept of social security. It would open the way for expansion which would continually add to the tax burden of the working population. TMA's statement concluded that the real issue before the Committee is not that of providing necessary medical care for the aged, because this need is being met through existing programs. The real issue is whether medical care should be rendered for those needing it, or for a compulsory type of socialized care for all Americans. (See page 489 for the complete statement submitted by TMA.)

MAA Administration Cost Coming Down

● The cost of administering the Medical Aid to the Aged Program has dropped from 59¢ per dollar spent the first year, to 27¢, it was reported by State Welfare Commissioner Roy Nicks. It was also reported that the Medical Aid to the Aged Program cost $717,925 for the first six months in 1963, of which $522,210 was in benefits and $195,715 for administrative costs. 14,783 elderly persons in the state now have been certified as eligible for medical assistance. A year ago only 6,370 persons were certified.

TMA Representatives Attend AMA Clinical Meeting in Portland

● Several Tennessee Medical Association members attended the 17th Clinical Meeting of the American Medical Association in Portland, Oregon, December 1-4. Official representation to the House of Delegates included TMA's three delegates. The President of TMA, Dr. Cannon, attended in addition to the Executive Director of the Association.

Debate Kit

● "What should be the roll of the federal government in providing health care for the aged?" is the national high school debate topic for 1963-64. Debate kits for use in connection with this topic are available through the Association's headquarters office. Many requests have already been received from high schools throughout the state.

TMA Committees Active

● The Tennessee Medical Association's Student Education Fund Board of Directors met in Nashville on November 3rd to consider applications for additional loans and basic changes in the loan agreement with students. The Board took action to tighten up requirements for reporting during the term of the loan and to require those obtaining loans to furnish a life insurance policy at least equal to the amount of the loan. . . . On November 10th, TMA's Council met in Nashville for a study of problems in the various Councilor Districts. The Council also acted to establish a committee for the purpose of improving liaison between medical societies and the various state regulatory boards. In addition, the Council met with representatives of the Executive Committee of the Tennessee Hospital Association, for a probing discussion on the subject of corporate practice. The Council adopted a motion that "in the opinion of the Judicial Council, that a percentage arrangement between physicians and hospitals as a means of compensation for physicians can only lead to unethical practices".

Public Service

THE TENNESSEE TEN

Hadley Williams, Public Service Director

King-Anderson Hearings Halted

● Hearings being held by the House Ways and Means Committee on H.R. 3920, the King-Anderson Bill, were halted Nov. 21st due to the assassination of President Kennedy. It has been reported that the final five days of testimony will be heard beginning Jan. 20, 1964.

When hearings resume, a majority of witnesses will be representing labor and senior citizens groups.

President Johnson On "Medicare"

● Considered one of the highlights of the annual convention of the National Council of Senior Citizens last June were remarks made to the Executive Board by the then vice-president, Lyndon B. Johnson. In referring to a fight in Congress for a minimum wage increase of 25¢ per hour some years ago, President Johnson said: "Such a small amount seems ridiculous now, and somehow I feel that we will have a similar reaction in the future to our present struggles for a hospital insurance program. Later on we are going to wonder why it took us so long to get so little. I know we are going to enact this vital and necessary program and thereafter we will continue to improve on it."

In reviewing his some 400 speeches in 43 states during the 1960 election campaign, President Johnson said that in replaying many of the recordings made of his speeches it was abundantly clear that those which brought the greatest public interest and sympathetic response were those dealing with health care for older people through Social Security.

President Johnson admitted that there was powerful opposition to the program by the American Medical Association and he commented, "Why anyone would want to deny a person the opportunity of putting in a dollar a month, along with his employer, to insure himself through Social Security against the staggering costs of hospitalization, simply amazes me. We ought just to say 'God forgive them for they know not what they do'!"

Sabin Programs Now Statewide

● Seventy-five Tennessee counties have announced plans or have begun Sabin Oral Vaccine immunization programs. Latest announcement of plans came from the Chattanooga-Hamilton County Medical Society which will begin the three-dose program in January.

Of the twenty counties that have not instigated a Sabin program, six do not have a county medical society. The large majority of counties not participating are in West Tennessee. It is hoped that the Consolidated Medical Assembly of West Tennessee will announce plans for a Sabin program within their counties in the near future.

Mental Health Congress Termed Success

● The first Tennessee Congress on Mental Illness and Health was held in Nashville, November 13-14, with some 450 persons in attendance. TMA's Dr. Frank H. Luton was general chairman of the Congress.

The day and a half meeting was highlighted by addresses from several prominent physicians and laymen in the field of mental illness. Dr. Lindsay Beaton, of Tucson, Arizona, vice-chairman of the American Medical Association's Council

on Mental Health, delivered the main address at the dinner meeting and also gave a "summation" of the Congress before adjournment. Dr. Bland W. Cannon, president of TMA, served as toastmaster for the dinner.

Governor Frank Clement spoke to the Congress, as well as Nashville's Mayor Beverly Briley. Others appearing on the program were Dr. Kenneth Appel of Philadelphia, President of the Joint Commission on Mental Illness and Health; Dr. Robert Garber, of Belle Meade, New Jersey. Speaker, Assembly of the American Psychiatric Association; Dr. William F. Sheeley of Washington, D. C., Chief, Education Project of the American Psychiatric Association, Academy of General Practice; Mr. Philip E. Ryan of New York, Executive Director, National Association for Mental Health; Mrs. Elizabeth Margulis, of Chicago, American Medical Association; and Mr. John W. Forest of Atlanta, Vocational Rehabilitation Administration.

Senior Citizens News Reports on Rural Health Conference

● The November issue of Senior Citizens News gave the recent Rural Health Conference the following coverage:

"From Tennessee, a member of our National Organizing Committee, Mrs. Thornburgh, reported that the AMA turned a recent University of Tennessee Agriculture Extension Conference on Rural Health into an anti-Medicare program.

"The State Medical Society gave a free luncheon to attract Farm Bureau and Welfare leaders and fed them a speech by the AMA's Regional Legislative Director, Bernard P. Harrison. How public monies are used in this manner raises many questions. It is significant that this occurred in the district of a key Ways and Means Committee member, Congressman Howard Baker."

The conference was jointly sponsored by the Tennessee Medical Association, Tennessee Farm Bureau Federation, and the University of Tennessee Agricultural Extension Service under the chairmanship of TMA's Dr. Julian C. Lentz of Maryville.

The TMA did host the conferees to a luncheon but it is extremely doubtful that those in attendance came just for lunch. Mr. Harrison's address in the afternoon session of the conference dealt with current legislation affecting health care now pending in Congress and was a comprehensive report on all such legislation pending.

Obviously the reporter thought the conference was being sponsored by a government organization since the reference to public monies was used. However, the "State Medical Society" has been, since its origination in 1830, a privately chartered organization of physicians. Since the annual affair is scheduled to be rotated throughout the state, next year's meeting will also be "significant" since it will be held in another congressional district.

Health Insurance Benefits Rise

● The Health Insurance Institute reports that the American public received an average of $11.4 million a day in health insurance benefits from insurance companies during the first nine months of 1963.

The institute said this was an increase of $1.1 million a day over the average daily benefit payments made by insurance companies in 1962.

At the end of 1962, over 141 million Americans had some form of health insurance protection. Sixty percent of the population age 65 and over are now covered by some form of health insurance.

Thought of the Month

● . . . our cause is the cause of all mankind, and that we are fighting for their liberty in defending our own.

. . . Benjamin Franklin

feeling badly. Weight was 148 lbs. She continued to make frequent visits to the office and hospital. In Feb., 1957, she was admitted because she complained of tarry stools. Studies showed the Hgb. to be 11.5 Gm. No cause for the gastrointestinal hemorrhage could be found. She was given two blood transfusions and seemed to feel considerably improved. She gained weight and seemed to feel better. A few months later she had another attack of abdominal pain and was admitted to the hospital. A diagnosis of diverticulosis of the colon was made. She continued to make frequent visits to the office and was admitted to the hospital many times with abdominal complaints. The record shows two admissions to the hospital in 1958, two in 1959, two in 1960, three in 1961, and nine in 1962. All were for attacks of diarrhea, nausea and vomiting. She was usually in the hospital for 2 to 4 days. It was noted that she would usually refuse to give a history to the intern or student and would not submit to their examinations. No weights are recorded but it was noted in 1961 and the beginning of 1962 that she was obese.

On Feb. 5, 1963, she was readmitted to the hospital for pain in the abdomen, nausea and vomiting of 2 weeks' duration. The abdominal pain was on both sides but there was also pain in the left lower chest. She seemed to be swallowing air and belching constantly. She had been taking considerable Empirin Compound with Codeine. It was noted that there was marked weakness and that she was losing weight. She was unable to sleep.

Physical Examination showed a T. of 100°, P. 84, R. 28, and B.P. 150/90. No abnormalities of the head, neck, heart or lungs were found. The abdomen showed multiple scars and tenderness in the lower half. The bowel sounds were normal; there were no palpable masses. Pelvic examniation was not done. The reflexes were normal.

Further history revealed that she had been passing black stools for 1 month before entering the hospital. She admitted that she had been starving herself for about a month and thought that she weighed about 75 lbs.

Admission laboratory studies showed a Hgb. 12 Gm., P.C.V. 37.5, WBC. Count 5,800 and P.M.N. 73, lymphocytes 30, monocytes 7. Urinalysis after glucose intravenously showed 3+ glucose and 1+ protein. Three days after admission the P.C.V. was down to 26.5; after 3 transfusions the Hgb. was 12.5 Gm. and the P.C.V. 35.5

Course. On the morning of Feb. 8 she ate very little and complained of nausea. B.P. was 108/80. She seemed to be very apprehensive as the day went on, and at 2:30 p.m. she was found to be without demonstrable blood pressure and pulse. She vomited dark reddish-brown, foul-smelling liquid material. Attempts to raise the blood pressure with medication and intravenous fluids resulted in elevating the blood pressure only, to approximately 50. The pulse was rapid and irregular, and it was noted that she looked extremely pale. Finally, after a blood transfusion was started she responded with return of the B.P. to 110/70 and the P. rate to 84. She continued to vomit but appeared to be alert. Pain was controlled with 50 mg. of meperidine q. 3 hr. On the evening of Feb. 9 the blood pressure dropped again and, at the request of the family, no more blood was given. She continued to vomit dark red liquid. Respirations became shallow, blood pressure disappeared, and she died at 4:30 p.m. on Feb. 10, 1963. The vomitus continued to be bloody until the time of her death.

DR. MAURY BRONSTEIN: If one can take this protocol at face value, and admittedly, this is dangerous to do at a CPC, the most impressive thing to me is the perserverence and patience that Dr. Warr must have had in going through at least 50 hospital admissions. Almost every paragraph included the notation of abdominal pain from 1933 until the patient expired. Objectively, though, there was little evidence of organic abdominal disease until 6 years prior to her demise, at which time she developed tarry stools, and finally she had a massive hemorrhage from the upper gastrointestinal tract.

Among the chronic causes of nonmalignant, recurring abdominal pain is acute intermittent porphyria, which may be manifest by intermittent, colicky abdominal pain particularly out of proportion to evidence of abdominal tenderness and muscle spasm. The pain may be generalized or localized. By the time these patients are diagnosed, they usually have had multiple nonrevealing laparotomies. In addition, symptoms and signs often include nervous manifestations which may range from neurasthenia, hysteria, acute psychotic disorders to various types of neuropathies and cranial nerve signs. Most studies for urinary porphobilinogen mention that this is always present in the event of abdominal or CNS symptoms. Sometimes these patients develop intestinal obstruction. Recall that this patient was treated for intestinal obstruction on four occasions, none of which required surgery.

A good case might be made for chronic relapsing pancreatitis. Initially, an episode of acute pancreatitis heralds the onset of this entity, but not always. Spells of simple indigestion occurring a few times a year may in retrospect be the only clues to the diagnosis of impending chronic pancreatitis. The clinical syndrome of chronic pancreatitis usually depends on the amount of pancreatic

destruction which has occurred in the glandular tissue which is replaced by fibrosis. When the fibrosis becomes extensive enough there is almost constant pain. Except during a bout of acute pancreatitis there is often only slight tenderness, assuming a pseudocyst has not developed. There may be a lack of any other symptoms, but with further progression of the disease, weight loss becomes more obvious along with diarrhea and, finally, steatorrhea. Severe pain, nausea and vomiting are very common. Chronic pancreatitis even with the use of the newer laboratory techniques is still primarily recognized clinically by the nature of the pain, history of relapses, diarrhea and weight loss along with cyst formation and pancreatic calcification seen by x-ray. As to this latter sign, only 25 to 50% of patients with chronic pancreatitis develop radiologically visible calcification, the opacity depending on the size of the calcifications. Very rarely a large stone erodes its way out of the fibrosed pancreas to create a gastric or intestinal fistula associated with severe hemorrhage. This entity or an ulcerogenic pancreatic tumor are diagnoses which might explain all the symptomatology in a single diagnosis.

Six years prior to her death she had an episode of upper gasrtointestinal tract hemorrhage manifested by tarry stools. I would like to think that this incident represented the onset of her final illness. Her marked weight loss suggests a malignant lesion, but she was obviously psychotic and starved so the former might not be valid. If the tarry stools in 1957 and the gastrointestinal tract bleeding in 1963 were due to the same disease, and if her weight loss can be attributed to this same six year process, then she should certainly not have been obese in late 1961 and early 1962. So this long history of recurrent gastrointestinal tract bleeding turns my thoughts toward a benign lesion. After considering such things as esophageal varices, benign gastric or duodenal tumor and polyps and upper gastrohemangiomas of the intestinal tract, none of which appeals to me, I am left with one or two choices. The first is the Mallory-Weiss syndrome, in which severe vomiting causes linear mucosal tears in the cardia of the stomach and may result in hematemesis and exsanguination. The other alternative is a bleeding peptic ulcer, which statistically is certainly more probable. So my diagnoses on this patient would include, (1) diverticulosis of the colon, (2) chronic relapsing pancreatitis, and (3) bleeding duodenal ulcer with exsanguination.

DR. M. M. KEIRNS: We had a few x-ray examinations on this patient. Two chest examinations are available, one made in October, 1961, a second on April 7, 1962, at the time of an acute episode. Both of these show essentially clear lung fields and a normal heart. No subphrenic air is present. At the time of the later chest examination a KUB. film showed a good bit of scattered gas with moderate distention extending into the stomach and small and large bowel. Most of the small and large bowel is outlined. The interpretation at that time was ileus rather than obstruction. I would still believe that to be true. I believe you can see an outline of the spleen, which is not enlarged, but I think it is interesting that the liver apparently is small. Throughout the later examinations the liver appears to be quite small. There is a moderate amount of calcium in the abdominal vessels. I do not see any pancreatic calcification. There is calcium in the upper abdomen but this is in the aorta.

DR. OTIS WARR: We must remember that a whole battery of doctors had this patient alive and had trouble healing her. I wonder if anyone might have any suggestions that might help Dr. Bronstein, or are there any other diagnoses:

DR. KEIRNS: Another film of a barium enema shows a few diverticular scattered through the descending colon and the sigmoid but certainly no evidence of diverticulitis and not many diverticula. Again I am rather interested in the small liver.

DR. WARR: Dr. Milnor, do you know anything about this patient that I left out? Was I unfair, did I leave something out?

DR. PERVIS MILNOR, JR.: There is pertinent or perhaps at least symptomatically related to this case an article in the recent literature on an abdominal form of Weber-Christian disease, which is idiopathic, nonsuppurative, relapsing panniculitis. This was a report of 4 cases proven by biopsy, and is the only report of this disease

in this location with which I am familiar. I believe this has to be statistically an uncommon entity—certainly one that is uncommonly diagnosed; nevertheless, the relationship between the long continued bouts of abdomial pain cause me to put this entity down as one that we ought to think of perhaps along with intermittent porphyria.

DR. WARR: Does anyone else have any discussion? If not, Dr. Bale will tell us about the findings observed at autopsy.

DR. GEORGE F. BALE: I am not sure that I will shed much light on this lady's problems, which lasted 30 years, but I will tell you what we found and then give my interpretations.

This patient was a very small woman weighing about 70 lbs., measured about 5 feet long and had several abdominal scars. The lungs contained some gross consolidation, which was confirmed as broncho-pneumonia histologically. The abdomen had a considerable amount of blood around the pancreas extending retroperitoneally to the upper pole of the left kidney. This lady had an aneurysm of the hepatic artery, and it was located at a place where the vessel trifurcated. In the picture one can see two branches and a third penetrated posteriorly into the liver. (Fig. 1) The top of the aneurysm is seen on the right side of the photograph, and adjacent is hemorrhage which has dissected out through the liver into the tissues about the pancreas, lesser peritoneal sac and down to the left kidney region. This, we believe, is what happened to her two days before she died, but it surely did not have any bearing on her complaints in 1930, 1940 or 1950. Another view shows the bottom of the aneurysm where one sees the cut surface of a vessel which appears to point directly into the aneurysm. Some few grayish-yellow plaques are seen through the intima suggesting that this aneurysm had an arteriosclerotic origin. She showed moderate arteriosclerosis of the vessels of other organs.

She had an ulcer in the stomach at the gastro-esophageal junction and three ulcers in her lower esophagus. All of these had a linear shape suggesting an origin from intubation. There was about 50 ml. of bloody fluid in her stomach. The remainder of the

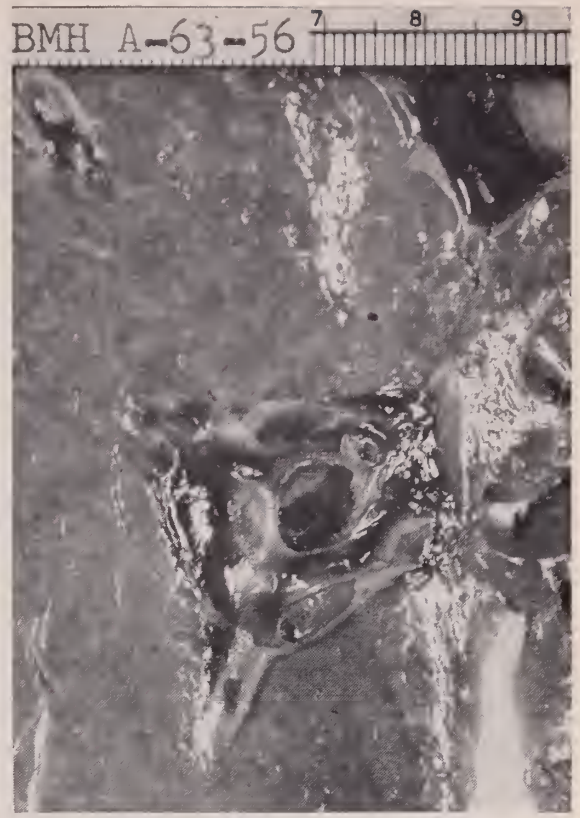


FIG. 1. Aneurysm of hepatic artery in the liver.

gastrointestinal tract did not show bloody contents.

The bladder revealed cystitis which, peculiarly, showed little vesicles filled with gas. The uterus, tubes, ovaries, appendix, and gallbladder had been removed surgically earlier.

A study of one of the ulcers at the gastro-esophageal junction shows the muscle of the wall still present and not fibrosed. This probably represents an acute ulcer which had just occurred in the terminal week or so. There are some relatively large vessels reaching the ulcerated surface and containing thrombi. In all probability the blood that was vomited and also was found in the stomach originated from these ulcers. The apparent acuteness of these ulcers precludes their existence much longer than a week or two, hence it would not explain the month-long melena or lifelong abdominal difficulties. Another section shows an area of the gastric mucosa that has changes probably resulting from the shock she encountered during the last days of her life. It shows coagulated necrotic mucosa without inflammatory response, and this suggests

that the changes were twelve to perhaps twenty-four hours old. This alteration may be seen in shock. It can be experimentally produced in dogs by several different types of shock-producing technics. It is an interesting finding in view of her shock, but in all probability it had no relation to her previous disease. Dogs and patients with shock may exhibit thrombi some of the vessels associated with areas of necrosis in the gastro-intestinal tract.

Elastic tissue stains of the aneurysm involving the hepatic artery show on one side a thin, black line that probably is the adventitial elastic tissue. On this side of the vessel, the muscle and internal elastic membrane are gone. Nothing is left but the adventitial elastic tissue where the aneurysm was formed, and where the blood poured out into the surrounding false aneurysm. The latter contained fresh, unorganized blood, although the aneurysm had probably been present for some time. Therefore, the bleeding occurred certainly less than five days prior to her demise. If it had been longer than that, it should have been at least partially organized. This interpretation correlates with the events of the last 48 hours of her life. There was a modest amount of arteriosclerosis in this vessel and wall of the aneurysm.

The bladder showed an interesting incidental finding. This was an emphysematous cystitis, in which gas bubbles are actually located in the submucosa of the bladder. There was also some hemorrhage and mild, chronic inflammation in the submucosa. The wall through one of the large cysts was lined by submucosal fibrous tissue that seemed to becoming multiloculated. One could speculate here upon the importance of the *Clostridium perfringens,* which was cultured from the heart's blood at the time of autopsy, but which I do not think played any etiologic role in the development of these cysts. Rather, this organism was a contaminant. The brain was entirely negative.

This, then, was a 65-year old woman who was markedly malnourished. She had minimal adhesions in the abdomen. I do not know why she had repeated abdominal pain for 30 years, and no evidence was found to explain why she should have had repeated, even partial, intestinal obstructions. She had an arteriosclerotic aneurysm of the hepatic artery, and this ruptured terminally to produce shock in a markedly debilitated patient. Her recent vomiting of blood-stained material probably came from the esophageal and gastric ulcers previously described. The cause of her 1957 bouts of melena remain unexplained.

Aneurysms of the hepatic artery are not very common. In 1950, Grant and associates[1] reported 87 cases and most of these were of infectious origin. The second most common cause was trauma, as from bullet wounds, and a third and least common group was due to arteriosclerosis which this patient had. These patients may present pain, gastrointestinal tract bleeding, and jaundice. The bleeding is usually due to rupture of the aneurysm into the biliary radicles. In this patient the aneurysm apparently did not open into her hepatic ducts, thus her previous hemorrhages in the gastrointestinal tract did not originate by this means. Such aneurysms can bleed retroperitoneally or into the peritoneum as hers did. The authors state that they can be treated by ligating the hepatic artery, but this had been done successfully in only 3 of the 87 patients. All the rest that had been ligated developed necrotic livers and died of this necrosis. These authors then suggest the possibility that reconstruction of the artery might be tried, but they point out that the technical difficulties of getting to this area.

Lastly, I would like to comment briefly about emphysematous cystitis. The latest review I could find on this subject was a paper[3] published in 1932, and referred to in Herbut's *Urological Pathology.*[2] This lesion is apparently a pathologist's cystitis and not seen clinically. The authors of this paper reported 24 cases, only one of which had been seen clinically, the remainder were encountered at the time of autopsy. Of these, 17 had no symptoms related to the genitourinary tract, only 4 of them showed marked symptoms of dysuria or frequency, and one had hematuria. It was interesting to note the causes that were suggested. The first was that the lesion resulted from a terminal phase of virulent infections of the gas bacillus, and since this lady did have a

gas bacillus in her heart's blood at the time of autopsy, this was considered, but she certainly had no evidence of gas gangrene elsewhere. Therefore, I believe that the organism was a contaminant.

The second cause mentioned was that a gas-forming bacillus, such as *E. coli*, producing an infection, might produce emphysematous cystitis. The third possibility mentioned was that in diabetics without infection, one can get gas formation from enzymatic decomposition of glucose in the submucosa. The fourth possibility was traumatic abrasions due to cystoscopy and introduction of air.

A PHYSICIAN: Dr. Bale, what contained the bleeding when the aneurysm ruptured? I cannot conceive of an aneurysm ruptured in a patient who received no transfusions and having the patient survive five days.

DR. BALE: She survived only two days. I think she bled then she went into shock. I said she bled less than five days, and I believe she bled more than five minutes before she died. But I cannot narrow it much more than that. If there were organization of some of the clot, I would know that at least a part of the hemorrhage was five days old or older.

A PHYSICIAN: She had black stools for one month though.

DR. BALE: As I said before, I cannot explain that and I cannot explain the black stools she had in 1957. The esophageal ulcers might have been present at most for a week or ten days.

A PHYSICIAN: Did you examine the aorta?

DR. BALE: It showed moderate arteriosclerosis.

DR. JACK GREENFIELD: Could she have had anything like chronic mesenteric artery disease?

DR. BALE: If it was present, I didn't recognize it.

A PHYSICIAN: Did this lady have any studies for porphyrins?

DR. BALE: I cannot help you here because histologically we see no specific changes in this condition.

References

1. Grant, J. L., Fitts, W. T., Jr. and Ravden, I. S.: Aneurysm of Hepatic Artery, Surg. Gynec. & Obst. 91:527, 1950.

2. Herbut, P. A.: Urological Pathology, Vol. 1, p. 228. Philadelphia, Lea & Febiger, 1952.

3. Ravich, A. and Ketzen, P.: Cited by Herbut.

Uranium Miners: Airborne radiation in mines was blamed as the probable cause of fatal lung cancer in 11 of 768 miners who worked underground for five years or more, in a report on a 13-year study by the National Cancer Institute. That death rate is 10 times the similar death rate in other occupations, the report said. Among 1,732 miners who worked underground less than five years, only one death occurred from lung cancer. *(AMA News, Sept.* 30, 1963.)

Government Grants: The president of the National Foundation, Basil O'Connor, charged that steadily increasing government grants are causing some of the nation's largest private foundations to curtail their own support of medical research. He said there can never be enough tax money to buy the research climate engendered by private philanthropies and the volunteered dollar. *(AMA News, Nov.* 11, 1963.)

President's Page



Dr. Cannon

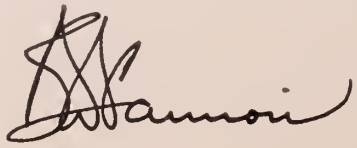
Our Executive Director who has supplied on numerous occasions the material for this page has suggested that an appropriate topic for discussion be that of communications. He has realized that there are disturbing limitations to the effective transmission of information between state organization and county society as has been noted from individual to individual, from committee to committee, etc., all in an effort to reach and communicate with the individual physician in our state. All of us are aware of the many difficulties forever developing because of inadequate communications within the family of medicine. More apparent, of course, are the failures in communications with the so-called "third party" such as administration of institutions, insurance and compensation carriers, and "health" groups. Deficits in communications are not contained within the confines of verbal usage or semantics because most of the problems can be spelled out in script as well as clearly told by verbal presentations.

How then can we improve on the transfer of information and thought from one individual to another? Let us, for a moment, accept that the individual with the information has the ability to formulate into words the material so that it is clearly presented and presumably easily grasped. Let us think of him as that foraging bee which having traveled across many fields and meadows returns and in unmistakable dance-language informs the hive the precise location of his finds. If our informer approaches this degree of perfection with words and script, then any failure in transmission of knowledge is the responsibility of the would-be recipient. Who can teach or instruct one who does not have the desire to learn? The recipient's interest in obtaining the information is certainly a primary factor. Equally paramount is a proper mood toward acceptance of information which will promote an adequate understanding of the message. For if this mood and understanding does not exist, although the spoken or written word may be adequately displayed, misinterpretation is not unusual.

We seem to depend always on a limited number of our members who display the proper mood and understanding to grasp the information and accept the burdens of responsibility. So many facets of problems relating to the medical profession need sincere interest, thought, and effort. Some of these are evident if you pause to think of trends in medical practice, associations with universities and hospitals, relationships with religion and law, socio-economic problems in medical care, mental health, insurance programs, political and legislative activities, and community health.

For effectiveness an organized plan is necessary, the sequelae being our medical organizations. But even organizations cannot overcome failures of communication and lack of interest. Certainly every physician in our state has some dormant curiosity and perhaps interest in one or more of the aforementioned aspects of professional relationships.

Neither Mr. Ballentine nor I nor any one of us may be as effectual as the foraging bee with its dance-language. We believe that improved communications can be realized by an increasing attentiveness of us all. Potential energy of magnitude is in our membership if our words could penetrate sufficiently to initiate its activation.



President

THE JOURNAL

OF THE
TENNESSEE MEDICAL ASSOCIATION

Published Monthly
Devoted to the Interests of the Medical Profession of Tennessee

Office of Publication, 112 Louise Avenue, Nashville 5, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this Journal whenever they desire merely giving credit to this publication.

Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor, B-4211 Vanderbilt University Hospital, Nashville 12, Tennessee
Address organizational matters to Jack E. Ballentine, Executive Director, 112 Louise Avenue, Nashville 5, Tenn.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University Hospital, Nashville

EDITORIAL BOARD

ADDISON B. SCOVILLE, JR., M.D.
2104 West End Ave.
Nashville 5, Tennessee

ALBERT WEINSTEIN, M.D.
Medical Arts Building
Nashville 12, Tennessee

COMMITTEE ON SCIENTIFIC WORK AND POST GRADUATE EDUCATION

R. H. KAMPMEIER, M.D., Chairman
W. POWELL HUTCHERSON, M.D., Chattanooga
ROBERT P. McBURNEY, M.D., Memphis
EUGENE J. SPIOTTA, M.D., Memphis
(Specialty Society Representatives to be named)

DECEMBER, 1963

EDITORIAL

HARRISON H. SHOULDERS, M.D.

We all must stop for a moment in our busy day to pay tribute to one who gave many hours of his time to the Tennessee Medical Association and to the American Medical Association. He died on November 17 at the age of 77.

A native Tennessean, Dr. Shoulders was given the M.D. degree by the University of Nashville in 1909. After an internship at St. Thomas Hospital and serving as resident physician of the Fort Infirmary, he served with the Tennessee Department of Health (1912-1917) and played a part in writing the State's vital statistics Law. As a captain in the Army Medical Corps he served overseas in World War I. After two years in postgraduate study and residency in surgery in New York City he returned to practice in Nashville until his retirement in 1955. He taught clinical surgery at the Vanderbilt University School of Medicine and contributed to the medical literature on many occasions.

For eighteen years, from 1927 to 1945, Dr. Shoulders' name was on the mast-head of this JOURNAL as Secretary-Editor for the Tennessee State Medical Association, a task to which he brought enthusiasm and interest. He represented the State Association as Delegate in the AMA House of Delegates from 1930 until 1935, when he was chosen Vice-Speaker of the House. He became its Speaker in 1938, holding this post until he became President-Elect of the AMA in 1945, serving then as President in 1946.

Early in the thirties, as a veteran of World War I and with great sincerity, he led opposition to the establishment of government hospitals for veterans, and urged instead a program of health insurance provided by the government for service connected disabilities, as consideration deserved by the veteran, thereby to avoid the "pauper's oath" to gain medical care.

Those who recall serving with Dr. Shoulders on committees and in other relationships will remember a man of conviction, persuasiveness, good humor and enthusiasm. He was a man worth knowing—one whom we may thank for the endless hours devoted to "organized" medicine.

R. H. K.

★

KING-ANDERSON HEARINGS

The hearings before the House Ways and Means Committee began on November 18 and had been scheduled to last through the 27th. They were abruptly closed upon the President's assassination. Chairman Mills announced the hearings were postponed until further notice.

Secretary of HEW, Anthony Celebrezze, was the first witness; his presentation and questioning took up most of the first day. His testimony was a recapitulation of all that had been publicized by the administration and proponents of the King-Anderson Bill. He was offered leading questions, and a few which he apparently did not relish. Important, however, was the fact that he admitted that social security taxes may well progress to exceed 10% of the payroll. Mills posed questions to the Chief Social

Security Actuary, and on the following day to Labor Secretary Wirtz, relative to costs of the proposed program. The actuarial soundness of the proposal is difficult to establish if, as seems to be the case, hospital costs are rising 3 to 4% faster than wage levels. These officials admitted that the rate of wage increases is declining and leveling off.

One Senator, in attacking HEW upon a planned program of interference with Kerr-Mills said, "These people, many in places of immense power, have used every means at their disposal to discredit Kerr-Mills in the eyes of the public, to confuse state legislatures in their attempts to enact proper programs, and to decrease potential recipients of M.A.A. benefits with meaningless red-tape used under guise of the means test. How could a program work perfectly with this kind of hamstringing at every turn?" Another member of the Committee agreed in this.

A member of the Committee pointed out that the labor force would pay in more than they could ever collect from Social Security. Labor Secretary Wirtz thought the younger people would be glad to share the bills of their elders!

The President of the National Association of Retail Druggists testified to his objection to the King-Anderson Bill, asking, "How can such a federal Medicare program be justified to the many medically needy persons under 65 ineligible for its generous benefits? Surely, a 65 year old millionaire executive has no greater claim to federal government aid than does the low income 40 year old with a sick wife and five children."

On the other hand, a union official and professor in social work, Columbia University, testified that King-Anderson does not go far enough.

The American Hospital Association testified against the Bill, as did the Secretary of Public Welfare of Pennsylvania, who was enthusiastic about the success of the Kerr-Mills program in meeting his State's problems with the aged. The President of the American Nursing Home Association urged greater interest in O.A.A. and M.A.A. programs. A spokesman for the Christian Scientists pointed out that the King-Anderson Bill would deprive a citizen of free choice if he were forced to contribute to a program against which he has religious scruples. Dr. C. B. Esselstyn, Chairman of the 33 member group of Physicians Committee for Health Care for the Aged Through Social Security, testified for the Bill (saying that 10% of physicians favor the Bill), as did the International Ladies Garment Workers Union, the Texas AFL-CIO, United Pensioners of Western Pennsylvania, National Social Welfare Assembly and assorted associations of "senior citizens."

The AMA testimony, given by Drs. Annis and Welch, ably set forth and documented its arguments against the King-Anderson type of legislation involving Social Security. It considered the economic situation of the aged, voluntary health insurance, the definition of "chronic disease," income and expenses of the aged, the growth and success of the Kerr-Mills program, and the confusion in estimated taxes to implement the King-Anderson Bill. (No doubt the full statement will appear elsewhere.) Little of the questioning of Dr. Annis dealt with the topic at hand, but rather was critical of Dr. Annis and others' public statements as impugning Senator King. The quizzing was quite personal according to reports at hand.

Mills, as before on another occasion, showed his worries of costs and adequate taxation. In querying a witness for the private insurance industry, Mills was answered that though HEW estimates the 1966 cost of King-Anderson as $1.6 billion, the insurance actuaries estimate it as $2.7 billion. For 1990, HEW estimates a cost of $2.5 billion; the insurance industry estimates it at $6.8 billion. The speaker for the insurance companies pointed to the 1952 figures of 26% of the aged 65 and over as insured; for 1962 the coverage is 60%, and it is estimated to be between 68 and 75% by 1969.

The discontinuance of the hearings did not permit the testimony of a major proponent of the King-Anderson Bill—the AFL-CIO.

Numbers of state medical associations and other groups submitted statements to go into the records of the Committee's hear-

ings. The statement by our Association appears in full on page 489 of this issue of the JOURNAL. *The officers of the Association are hopeful that all members will become familiar with this statement to have knowledge of what T.M.A. has done in the area of making medical care available for the aged.*

This running account tries to tell something of the story of the hearings for those who have not followed their progress. The sequel will need to await a future date.

R. H. K.

Special Item

Statement of The Tennessee Medical Association to the Ways and Means Committee of the House of Representatives on H.R. 3920, 88th Congress

The title indicates that this document represents the official summary of what TMA has done in the care of the elderly medically indigent as of November 5, 1963. It is a document of accomplishment of which Tennessee's medical profession can be proud. Every member of the Association should become well versed in it so he may discuss sensibly with his Congressman and other laymen what Tennessee has accomplished.—Editor's Note.

Introduction

The Tennessee Medical Association represents some 3,000 physicians in Tennessee. It has been in existence since its original organization in May, 1830. From its inception, the Association has diligently worked for the extension of medical knowledge; the advancement of medical science; the maintenance of medical ethics, and the competence of the art of medical practice. It has strived for the elevation of standards of medical education; the enforcement of just laws that have to do with the health and welfare of the people of Tennessee. It has attempted to enlighten and direct public opinion with regard to health and medical care, and the promotion of understanding between the public and the medical profession. The Association, representing the medical profession in Tennessee, has enabled physicians to render ever-expanding public service in the prevention and cure of disease and in prolonging and adding comfort to life.

Health Programs Initiated

The Association has helped to initiate state programs which provide health care for medically indigent and near needy people in Tennessee. It works constantly to improve these programs and services. Councils and committees of the Association examine state and national medical problems and attempt to aid in their solution. Officers and members of the Association confer regularly with officials of the State Government and its various agencies, thus resulting in a better understanding of mutual problems that lead toward the settlement of differences, resulting in more efficient and less expensive medical care by physicians for the people of Tennessee.

The Tennessee Medical Association represents approximately 96% of the physicians of Tennessee who are actually treating patients. The medical profession of Tennessee is aware of the problems involved in providing needed medical care to persons in low income groups and to the aged, and has moved vigorously and effectively toward solutions to these problems.

With this testimony, it is intended to establish that the existing programs in Tennessee obviate the necessity for passage of any further federal legislation in the area of health care at the present time; particularly such legislation as H.R. 3920, the Hospital Insurance Act of 1963, a bill to which the Tennessee Medical Association is opposed.

Tennessee's Program for the Aged and Voluntary Health Plans

The Tennessee Medical Association was one of the first to adopt a service benefit type of voluntary health insurance plan. This plan has been in effect since 1949. In 1961, the Association established and put into effect its new *Tennessee Senior Citizens Plan* covering health protection in the surgical, medical (including diagnostic), radiological, pathological, and anesthesia care for persons 65 years of age and over.

The Tennessee Plan provides that participating physicians agree to accept as full

payment of fees the amounts listed in the fee schedule of the policies sold by both non-profit and commercial insurance companies to persons in low income classifications. Presently, forty-one such underwriters provide service to more than 1¼ million persons in Tennessee. Specifically, persons eligible for service benefits are those single individuals whose annual income does not exceed $2,400 and families whose annual income is not more than $4,200 per year. The Association's *Senior Citizens Plan* offers coverage to persons 65 years old and over, with needed health care, whose income for single persons does not exceed $2,500 per year and senior citizens with dependents whose aggregate family income does not exceed $4,000 per year.

Thus, the physicians of Tennessee have taken action to provide a mechanism for persons of modest financial means of all aged groups to prepay a major portion of their medical cost.

The Tennessee Medical Association is and has been active in the guidance of Tennessee's mental health programs, welfare care standards, rural health measures, and rehabilitation services, to mention only a few of the public service projects initiated or sponsored by this Association.

The Tennessee Medical Association developed and sponsored in the Tennessee General Assembly the program for *hospitalization of medically indigent persons of all ages,* which has subsequently been adopted by other states. The program provides that persons determined to be medically indigent by screening committees at the county level are admitted for necessary hospitalization—*with the attending physician agreeing to make no charge for services rendered* during the period of hospitalization. The hospitals are reimbursed by monies made up of state and county funds with the individual counties participating on a voluntary basis. Ninety-three of Tennessee's ninety-five counties have elected to participate and the non-participating counties have less than one percent of the state's population.

Tennessee Supports Kerr-Mills (P.L. 86-778)

The Tennessee Medical Association vigorously supported legislation in the Tennessee General Assembly in 1961, to establish funds for implementing the Kerr-Mills Law (P.L. 86-778).

Tennessee was one of the first states to implement P.L. 86-778 (Kerr-Mills Law) for medical care of the aged. Representatives of the Tennessee Medical Association acted in an advisory capacity to the Governor and State Officials in the old age assistance and medical assistance to the aged programs and have moved forcefully for expansion of these programs since the passage of Public Law 86-778 by Congress in 1960.

Medical Assistance for the Aged Expanded Five Times

According to the Social Security Bulletin, Vol. 26, No. 4, at the close of 1962, thirty-two states had taken legislative action to implement the 1960 Amendment to the Social Security Act providing for medical assistance for the aged (MAA).

At the beginning of 1962, all but three of the states were providing vendor payments for the medical care of old age assistance recipients (OAA) and now all fifty states are making payments.

The Medical Assistance for the Aged Program in Tennessee has been in effect since July 1, 1961. Since that date, through the diligent efforts of the Tennessee Medical Association, working closely with State Officials, this program has been expanded five times. *It is significant to point out that Tennessee physicians voted not to include vendor payments for their services* under the program.

The Medical Assistance for the Aged Program, *at its inception,* included:

(1) Ten days of hospitalization per year.

(2) A limited drug formulary for diabetic and heart patients.

The program was available for persons over 65 years of age who were unable to pay for medical care. A practicing physician was required to certify the patient's need for hospitalization or drugs. A person could not be an inmate of a State Mental or TB Hospital, and the total income for a single person could not exceed $1,000 or $1,500 per year for married couples. There was also moderate limitations of equity in property for persons to be eligible for coverage. The program required that a person

admitted to a hospital under the MAA program would pay the first $100 of the hospital bill; however he could apply towards this any hospitalization insurance he might own.

In the first expansion of the program, following constant efforts by members and officials of this Association, the program was broadened effective February 1, 1962, in the following manner:

(1) the deductible amount paid by the patient for hospitalization was reduced from $100 to $25;

(2) the value of real estate which an eligible person might own was increased from the $5,000 equity and total value of $7,000 to an $8,000 equity and total value of not more than $10,000; and

(3) the drug formulary was expanded to include antibiotics and tranquilizers.

The *second expansion* of the program went into effect July 1, 1962. In this expansion, hospitalization per year was extended from ten to fifteen days. The criteria for hospitalization was broadened to permit a person to be admitted for life-endangering and sight-threatening illnesses.

This was an important expansion in the program. It was stated by the Tennessee Hospital Association that this change could double the number of eligible persons. Any illness which in the opinion of the attending physician and medical review officer is life-endangering is now covered ni the Tennessee program under MAA. As an example, if two patients over 65 were admitted to a hospital, one with pneumonia and the other with cancer of the breast, the pneumonia would be an acute illness and the patient, therefore, would be covered, but the cancer patient would not qualify for assistance. With this expansion, the cancer patient is now also considered in a life-endangering condition and, therefore, would be covered.

The *third expansion* became effective December 1, 1962, with the adding of an additional category of service to cover nursing home care up to ninety days in any one year. This was one of the original recommendations made by the Tennessee Medical Association prior to establishing the program. Following this expansion, at the request of the Governor of the State, a Consultative Committee was named to advise with the Governor and State Officials in the continued broadening and administration of the MAA program. As a result, in February, 1963, the Committee recommended to the Governor the following expansions:

(1) To increase income limitations from $1,000 for single persons and $1,500 for married couples over 65, to $1,300 for single persons and $1,800 for married couples.

(2) That the payment for nursing home care be raised from $80 to $150 regardless of illness or condition.

(3) That, upon certification by a physician, an additional five days be added to the fifteen days allowed for hospitalization.

(4) That a broadened drug formulary be approved.

(5) That the State employ a director for the MAA program, in order that it could be more effectively implemented throughout the state.

As a result of these recommendations, a *fourth expansion* of the program became effective July 1, 1963. This expansion included:

(1) Further broadening of the drug formulary.

(2) Increased the number of days of hospitalization from fifteen to twenty days total provided in any one year.

(3) An increase in nursing home payments based on standard of service. The added nursing home payments represented an increase of as much as 56% over previous payments.

Also, under the provisions of the *Old Age Assistance Program,* the State agreed to:

(1) Expand the program to include life-endangering and sight-threatening illnesses.

(2) Provide the same drug formulary for OAA as for MAA recipients.

(3) Increase the nursing home payments equal to the MAA program.

Representatives of the Tennessee Medical Association met with officials of the state government in mid-September to consider recommendations for broadening the MAA program.

As a result of this most recent meeting, the State of Tennessee agreed to raise income limits for MAA eligibility from $1,000 to $1,300 for single persons and from $1,500 to $1,800 for married couples. The Tennessee Medical Association's recommendation that a director of medical services be appointed was also accepted and this newly created position has been filled.

The above income limit revision went into effect November 1, 1963 and approximately 30,000 additional Tennesseans age 65 and over immediately became potentially eligible for benefits under the MAA

program. This increase in potential beneficiaries brings the number to approximately 140,000 Tennesseans estimated, by the Welfare Department, to be within the income limits for eligibility.

This *fifth expansion* of the MAA program is by no means the last to be expected. State Welfare Commissioner Roy S. Nicks expressed hope that income limits could be raised again in early 1964 to $1,500 for single persons and $2,000 for married couples which would, in effect, be well above the average yearly income limits of both groups.

With these five expansions in just over two years, the Tennessee Medical Association has sought not only to broaden the scope of services provided, but to increase the number of citizens of the state who might qualify for benefits.

Although the Tennessee program of medical assistance to the aged is just over two years old, over $1,000,000 has been provided to pay cost of hospitalization, nursing home care, and drugs. The 1963-64 fiscal year appropriation was expanded to provide $2,000,000 during the period. For the fiscal year 1964-65, there is allocated $2,500,000.

The combined total cases for the first 24 months of the program for which funds were paid amounted to 14,581 (total of hospital admissions, number of individuals receiving drugs, and number of individuals receiving nursing home care). Indicative of the expansion of the program in Tennessee are figures for the second year of its operation. Total benefits from July 1, 1962 to July 1, 1963 amounted to $783,526.48, more than four times the total distributed during the previous year. Approvals of applications for benefits under MAA increased 114.5% in June of 1963 over January of the same year.

In July, August, and September, the latest months for which complete figures are available, 4,700 patients received hospitalization, nursing home care and drugs with benefits totaling $287,024.42. Funds provided by the State of Tennessee, along with matching monies from the federal and county governments, will allow expenditures of approximately $170,000 a month during the current fiscal year and approximately $212,000 a month in 1964-65.

Most of the funds expended through the MAA program went for hospitalization. During the fiscal year 1962-63, as an example, hospitalization payments amounted to $658,131.28 compared with $83,942.66 for drugs, and $41,452.54 for nursing home care.

Estimates by the Welfare Department of Tennessee are that 140,000 Tennesseans 65 years of age and over are within the income limitations for eligibility under the State's MAA program. Applications totaling 14,783 had been approved at the end of September, for persons qualifying under MAA provisions.

The number of days for hospitalization of eligible patients during the first 24 months of the program totaled 36,179; drug prescriptions filled totaled 18,414; and the program provided some 18,084 days of nursing home care.

In addition to these benefits to recipients of MAA, the Old Age Assistance (OAA) program in Tennessee provided hospitalization for 9,405 patients, costing $838,473.77 during 1962. Also, 16,378 patients were provided nursing home care costing $210,864.88. The total number of recipients of OAA in Tennessee in 1962 was an average of 50,638 persons per month, and the total program cost was $27,649,848.50.

Administrative Costs

Statements have been made by proponents of H.R. 3920 that the MAA program in Tennessee is costing approximately 60 cents in administrative costs for each dollar paid in benefits. This is not true.

During the initial fiscal year of the MAA program (1961-62), administrative costs did reach this proportion. This is understandable since some twenty additional employees were added to the Welfare Department for handling the program, plus the additional costs of setting up an entirely new program. The figure for the fiscal year 1962-63, the second year in which the program was in operation, was 27 cents, a reduction of 55 per cent.

Commissioner of Welfare Roy S. Nicks has stated that the dollar cost per dollar benefit type of comparison is not valid, since the MAA program will always have a great many more people certified for benefits than will actually require or re-

ceive them. Thus, the cost of administration based on recipients' benefits only is a false one. The administrative cost of case workers who screen, investigate and certify thousands of applications yearly plus the administrative cost of maintaining thousands of previously certified persons, who have not required aid but must be carried on the program, is not taken into consideration.

Commissioner Nicks has stated that the MAA program in Tennessee has the lowest cost per case per month, which is the accounting method used for the four other programs (Old Age Assistance, Aid to Families with Dependent Children, Aid to the Blind, and Aid to the Disabled), administered by his department. In comparison, the Aid to Families with Dependent Children program cost 112 per cent *more* to administer than did the MAA program for the first six months of 1963.

It is also noteworthy that the Department of Health, Education and Welfare does not issue cost per month per case figures for MAA as they do for the other categories, with the explanation that these figures would have little value.

Assistance to the Aged in Other Areas

This Association has devoted time and effort to other phases of care for the aged in Tennessee. It has been instrumental in establishing the Tennessee Council on Aging which is a separate organization made up of twenty-five organizations working with aged persons. Housing, recreation, and rehabilitation are examples of the program in which the Council is engaged. The principal work and purposes of the Tennessee Council on Aging are to identify and analyze the health, social and economic needs of Tennessee's aging, to appraise available resources for the aged, to suggest programs to improve the well-being of the aged, and to stimulate interested organizations and agencies to implement such programs. In addition, through the efforts of the Tennessee Medical Association and the Tennessee Council on Aging, the Governor of the State established a Governor's Committee on Aging. As an outgrowth of this, in 1963 the Tennessee General Assembly established a Commission on Aging, which is now an integral part of the State Government.

Supplementing the health care programs previously listed, there are others including those offered by: (1) the Veterans Administration; (2) the State Government, through its mental and tuberculosis hospitals—the latter which also admit nontuberculous indigent patients suffering from chronic chest diseases; (3) City and County Governments, through their hospital and clinic services; and (4) numerous private and teaching hospitals in Tennessee, which provide in-patient and out-patient clinical services to needy persons.

These examples of services establish that adequate facilities are available in Tennessee to provide medical care to those who need it. The Tennessee Medical Association has been effective in seeing that medical care is available regardless of the ability of a person to pay for such care.

Economic Status of the Aged

The 1960 census reported there were 301,031 persons age 65 or over in Tennessee. The average income for single persons over 65 was $639 per year. The 1960 census also reported 94,442 husband-wife families with the head of the family 65 years of age or over. The average income for all these families was $1,969. Fifty-one per cent of this group have incomes of less than $2,000 per year; 66 per cent have incomes of less than $3,000 per year; and 10 per cent have incomes of over $7,000 per year.*

According to the Social Security Office in Nashville, Tennessee, at the end of December 1962, there were approximately 235,000 aged Tennesseans drawing social security benefits totaling $13,984,293 per month.

Specific Objections to H.R. 3920

It is entirely consistent with these facts that the Tennessee Medical Association vigorously opposes the passage of H.R. 3920. The Bill (H.R. 3920) would change the Social Security philosophy to include the provisions of "health services" along with cash payments. From the beginning of these "services" standards must be established and the bill outlines specific standards and

*Social Security Bulletin, Volume 26; No. 1; Page 4; Table 1.

gives the Secretary of Health, Education and Welfare the power to enunciate and enforce any additional standards that he deems necessary. Proposals which would create a system of compulsory health care for one segment of our population, with benefits provided irrespective of need, must be recognized as one to initiate socialized medicine in the United States.

It is estimated that Tennessee taxpayers will be forced to pay $21,000,000 more taxes the first year alone if the King-Anderson Bill (H.R. 3920) is enacted by the Congress.

Tennessee workers now earning $4,800 or more a year are paying $174 in Social Security taxes. An additional Social Security tax increase is already scheduled to go into effect in 1966, and another in 1968, which will further boost their payroll deduction to $222. Tennessee workers paid $146,200,000 in Social Security taxes in 1961 and will pay $198,800,000 in 1965 under the present law. If H.R. 3920 becomes law, and goes into effect by 1965, Tennessee workers will be compelled to pay $216,700,000 in Social Security taxes. The Tennessee Medical Association is *opposed* to this proposal as it is staggeringly costly since it provides benefits for all persons over 65, regardless of financial status. The heavy tax will fall on those persons least able to pay.

By providing limited, standardized, across-the-board benefits, H.R. 3920 would ignore the great variety of individual needs in the wide range of state and local situations. It would under-supply both the medical and financial needs of those aged who are most in need of help. As an example, H.R. 3920 provides nursing home care *if* the nursing home of the patient's choice is an "eligible provider." To qualify as an "eligible provider" the nursing home must be affiliated with, or under common control of, a hospital which has a signed agreement with the Federal Government. Tennessee currently has 172 licensed nursing homes providing skilled nursing care, plus 77 homes for the aged. Of these, only 8 are affiliated with, or under control of, a hospital. The maximum number of nursing homes that could be utilized under the proposed bill, in Tennessee, would be 8.

By giving the Federal Government major responsibility for the health care of non-needy persons—and providing services rather than cash benefits—the Social Security financed type of plan would radically alter the fundamental concept of Social Security. It would open the way for expansions which would continually add to the tax burden of our working population.

The Hospital Insurance Act for 1963 is unnecessary because there are already existing mechanisms—voluntary, flexible and dove-tailing together—which can do the job more efficiently, more economically, and in a manner more fitting to the American tradition and viewpoint.

Even though the aged population of the United States has increased five and one-half million since 1950, the percentage of the aged population receiving OAA benefits has dropped from 22.8 per cent in 1950 to 12.3 per cent in 1963.

Summary

Physician members of the Tennessee Medical Association are opposed to H.R. 3920 because:

(1) It is totally unnecessary. The Kerr-Mills Law (P.L. 86-778) will do the job.

(2) The proposed law would mean poorer —not better—health care for the aged.

(3) It would lead to the decline, if not the end, of private health insurance which has made such great strides in recent years.

(4) It would mushroom into compulsory national health insurance for every American. What would start out as socialized medicine for the aged would eventually become socialized medicine for every man, woman and child in this country.

(5) It would be staggeringly expensive. Social Security taxes are already scheduled to reach nine and one quarter (9¼) per cent of payroll in 1969. This would increase them further. It is well to remember that such bills as these are irreversible in nature. The tendency is to expand them—never to contract them.

The physicians of Tennessee respectfully submit that the real issue before this Committee is not that of providing necessary medical care for the aged, because this need is being met through already existing programs. The real issue is whether medical care should be rendered for those needing it, or for a compulsory type of socialized

care for all Americans. Kerr-Mills is working in Tennessee.

The above are the reasons that the Tennessee Medical Association, comprising some 3,000 physicians, is opposed to the provisions contained in H.R. 3920.

DEATHS

Dr. H. H. Shoulders, 77, Nashville, died suddenly November 17th after a heart attack. Dr. Shoulders served as speaker of the House of Delegates of AMA for eight years, beginning in 1937, and was President of the American Medical Association in 1946-47. He was Secretary of the Tennessee Medical Association and Editor of the TMA JOURNAL for seventeen years. 1927-1944.

Dr. R. H. Millis, 80, formerly of Cookeville, died October 28th at the home of his son, Dr. James B. Millis of Nashville.

Dr. Ishom H. Beasley, 82, Gallatin, died October 25th.

Dr. Albert L. Ball, 53, Memphis, died November 4th following a heart attack.

Dr. W. S. Cooper, 84, Oneida, died October 20th.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Knoxville Academy of Medicine

The November 12th meeting of the Society was held in the Academy of Medicine Building. The scientific program was presented by Drs. Bruce Powers and Robert Gilbertson who discussed current diagnosis and treatment of diabetes mellitus. Dr. Andrew Holt briefly addressed the membership concerning the University of Tennessee Memorial Research Center and Hospital.

Memphis and Shelby County Medical Society

The Memphis and Shelby County Medical Society met in the auditorium of the Institute of Pathology on November 5th. A symposium, entitled, "Use and Abuse of Hormones" was presented by Drs. John W. Runyan, Jr., Alys H. Lipscomb, David M. Mills, and Henry B. Turner.

A television series on medical subjects of interest to the general public is being sponsored by the Society. The series began on November 12th and will continue for sixteen weeks. The topic on November 12th was "Polio and Other Immunization Programs" with Dr. L. M. Graves, Dr. Gilbert J. Levy and Dr. Henry G. Rudner, Jr. as speakers. On November 19th, "Obesity and Food Fads" was the subject discussed by Dr. I. Frank Tullis, Dr. George Lovejoy and Dr. Jack Halford. "Children and Sports" was the topic of Dr. Ben L. Pentecost, Dr. J. Marcus Stewart and Dr. Gene L. Whitington on November 26th. Succeeding programs will include such subjects as headaches, skin diseases, high blood pressure, backache, smoking and chest diseases, "wonder" drugs and drinking.

Roane-Anderson County Medical Society

"Do Viruses Cause Human Leukemia" was the subject discussed by Dr. Ralph Knisely, Medical Division of ORINS, Oak Ridge, and Norman Anderson, Ph.D., Biology Division, ORNL at the meeting of the Roane-Anderson County Medical Society on November 26th. The meeting was preceded by a dinner in the Cafeteria of the Oak Ridge Hospital.

Dr. Austin Smith, president of the Pharmaceutical Manufacturers Association, was the speaker at the fourth annual Dr. Dwight E. Clark Memorial Lecture in the Jefferson Junior High School auditorium on October 28th. The lecture is sponsored by the Roane-Anderson County Medical Society as a public service. Dr. Smith discussed the drug industry's position in its battle with federal investigative and "watchdog" committees.

NATIONAL NEWS

The Month in Washington
(From the Washington Office, AMA)

President Kennedy signed into law two bills providing for a five-year, $594.2 million federal program to combat mental illness and mental retardation through expanded research and community treatment centers.

A key feature of the legislation is a $150 million program of grants to the states for construction of community mental health

centers for inpatient and outpatient treatment of the mentally ill. Administration officials said they hoped that such centers eventually would be able to take care of as much as 50 percent of the mentally ill persons now in state mental institutions. One aim of the centers is to have the family physician play a larger role in the treatment of the mentally ill.

The new law contains no authority for federal funds for staffing these centers, most controversial aspect of the legislation in congress. The American Medical Association opposed the staffing provision.

In signing the bill, President Kennedy announced that Robert Aldrich, Director of the National Institute of Child Health and Human Development, will soon call together 50 scientists from this country and abroad to plan research on premature births.

He also announced that the office of education was setting up a new division for handicapped children and youth to administer the teaching and research program under the new law. It will be headed by Samuel Kirk, Professor of Education and Psychology at the University of Illinois.

The new law also provides $179 million over three years for construction of treatment and research facilities for the mentally retarded and for training of teachers for mentally-retarded children.

Earlier, President Kennedy had signed into law another part of the mental retardation program that was approved in separate legislation by Congress. This calls for $355 million to increase Federal aid in fighting mental retardation through improved maternal and child care. The five to seven year program includes a plan to provide preventative medical care for low-income mothers with a high risk of giving birth to retarded children.

★

The Food and Drug Administration issued the final orders on how it will carry out the new drug law's provisions covering ethical drug advertising. The federal agency agreed to modify most of the proposed regulations that the drug companies had protested.

One previously disputed section of the regulations was felt by the companies possibly to require the prepublication submission to FDA of advertising for virtually all important new drugs. The FDA revised the regulation to require "prior approval" of advertisements by the FDA only if the agency or the sponsor of the drug receives information not widely publicized in medical literature that use of the drug may cause fatalities or serious damage.

Another issue raised concerned sections of the regulations relating to "fair balance" and "relative prominence" of information on effectiveness and precautions in use of prescription drugs in advertising copy and layouts.

FDA assured the industry that the regulations will not prohibit use of graphic presentations, headlines or other "advertising techniques." The regulations, as now clarified by the agency, will not require equal divisions of space, word counts, headlines, illustrations and so forth. On the other hand, the regulation will require that statements about precautions for use of drugs be presented in type and format to insure adequate prominence and readability.

An additional question concerned apparent requirement that advertisements must list side effects and contra-indications for all common uses of a given drug, even if some of the uses are not referred to in the advertisement. In a clarifying statement, FDA said, in effect, that the nonrecommended uses need not be mentioned in most instances—that since side effects depend for the most part on duration of use, size of dosages or class of patients, it is appropriate that the side effects be disclosed only as related to these factors. The drug firms said this served to remove their principal concern on this point.

Another issue involved in the new drug law is a section of the regulations which would require that the established or generic name of a drug must accompany each separate mention of the drug's proprietary or brand name in an advertisement and in labeling. The drug firms maintained in a federal court suit that these regulations go beyond the FDA's statutory authority, since the statute requires only that established names of prescription drugs be printed in labeling and advertising "prominently and in type at least half as large as that used for any proprietary name."

The Food and Drug Administration was reorganized to upgrade the scientific aspects of the agency's work.

The new setup adopts major features from recommendations of a citizens advisory committee report in October, 1962.

HEW Secretary Anthony Celebrezze said that "an important feature of the reorganization is the upgrading of the scientific functions. I expect the reorganization to improve FDA operations all along the line. . . ."

An important feature of the reorganization will be the appointment of a National Advisory Council to FDA. It will advise the Administration on national needs and the effectiveness of program policies.

A new Associate Commissioner, who will be a scientist, will give leadership from the Office of the Commissioner to the programs and functions having to do with medicine, science and research.

Two new bureaus with scientific activities were established—a Bureau of Scientific Research, supporting FDA's basic mission of consumer protection, and a Bureau of Scientific Standards and Evaluation, which will handle safety clearance functions.

MEDICAL NEWS IN TENNESSEE

Middle Tennessee Medical Association

The 138th semi-annual meeting of the Middle Tennessee Medical Association was held November 21st at Fort Campbell, Kentucky. The President, Dr. Greer Ricketson, Nashville, presided and the invocation was given by Chaplain (Lt. Colonel) Holland Hope, USA, Staff Chaplain, Fort Campbell. Speakers and their subjects were:

Subdural Hematoma in Infants; Diagnosis and Differential Diagnosis—Capt. John Rochester, MC, USA, Fort Campbell

The Management of Staphylococcal Disease—Dr. David E. Rogers, Nashville

Emergency Management of Mass Casualties in Military Medicine—Field Demonstration, 326th Medical Company, 101st Airborne Division by Major Foster C. McCaleb, MC, USA, Division Surgeon, and Staff.

Present Day Management of Scoliosis—Dr. Thomas F. Parrish, Nashville

Surgery in the Treatment of Carcinoma of the Cervix—Dr. Roger Burrus, Nashville

Obstetrical Factors in Cerebral Palsy—Dr. Walter A. Bonney, Nashville

The Differential Diagnosis of Leukemia—Dr. Morse Kochtitzky, Nashville

The Treatment of Recurrent Pneumothorax by Pleurectomy—Dr. Kenneth L. Classen, Nashville

Fluid and Electrolyte Therapy—Dr. Vernon H. Reynolds, Nashville

Physical Modalities in Outpatient Practice—Major Amelia D. Amizich, AMSC, Fort Campbell.

A highlight of the meeting was the Presidential Banquet.

Annual Cardiac Day

"Cardiac Day," the symposium on heart disease conducted annually by the Middle Tennessee Heart Association for physicians in the mid-state area, was held at Vanderbilt University Hospital, November 8-9. Guest speakers included Dr. Richard Langendorf, director of cardiovascular clinical research at Michael Reese Hospital and Medical Center, Chicago; Dr. Grant Liddle, professor of medicine, Vanderbilt University; Dr. Frank Spencer, professor of surgery, University of Kentucky; and Dr. Richard Ross, associate professor of medicine and radiology, Johns Hopkins University. In addition to the scientific presentations, the program included an ECG Workshop and Cardiac Grand Rounds.

The Tennessee Department of Public Health and Vanderbilt University School of Medicine cooperated in presenting the symposium.

Grant to Intensify Tennessee's Immunization Program

A grant of $64,610 has been made by the Department of HEW to finance an educational campaign to stimulate public interest in immunization for children under five years of age. The program, announced by the office of Senator Herbert S. Walters, (D., Tenn.), will be supervised by the State Health Department and will be aimed at immunizing children for polio, typhoid, diphtheria, whooping cough and tetanus.

Clinic on Birth Defects

The Hamilton County Birth Defects Center sponsored by the National Foundation began on Oct. 24th at Baroness Erlanger Hospital in Chattanooga. The opening of the clinic, which will deal with all birth

defects requiring medical attention, culminates more than a year of detailed planning by a committee representing a broad cross section of the local medical profession in close cooperation with the National Foundation.

Third Annual Oration Sponsored by Nashville General Hospital

Physicians interested in the future of their practice, the future of medical education, current problems of medical education, and the impact of federal aid for medical education, heard an interesting discussion in the Third Annual Oration sponsored by the Nashville General Hospital on November 20th. Dr. William A. Sodeman, Dean and Professor of Medicine at Jefferson Medical College, was guest speaker.

Presbyterian Hospital to Have New Isotope Lab

Presbyterian Hospital in Knoxville is setting up a $30,000 radioisotope laboratory as the center of a new department of nuclear medicine. The laboratory will be used for both therapy and diagnosis of cancer. The equipment will also make possible the study of kidney, heart and liver functions.

University of Tennessee College of Medicine

Dr. I. Frank Tullis, chairman of the Department of Medicine since 1954, will be director of the clinical research center of the William F. Bowld Hospital. The Hospital and James K. Dobbs Medical Research Institute are being constructed jointly by City of Memphis Hospitals and UT. A 20 bed research unit will permit controlled metabolic studies. Dr. Tullis will resign his administrative duties but will continue personal research, teaching and consultation.

St. Jude Hospital

Dr. G. B. Pierce, Jr., associate professor of pathology at the University of Michigan Medical Center, was guest speaker at a research seminar on October 18th at St. Jude Hospital, attended by physicians, researchers and students from throughout the Mid-South.

★

Dr. George K. Tokuhata, author of several papers on heredity as related to lung cancer and smoking, has joined the staff of St. Jude Hospital. He will direct studies in epidemiology which deals with factors that determine frequency and distribution of disease. He was formerly principal epidemiologist with the U.S. Public Health Service, division of chronic diseases.

Southern Medical Association

The Association held its 57th Annual Meeting in New Orleans on November 18-21. Attendance of professional and technical persons totaled 6581. Of these 3529 were members with 1839 guests. Of Tennessee members 165 attended; 19 of these appeared on the program.

PERSONAL NEWS

Dr. Frank K. Jones, Jr., Cleveland, has been elected to the board of directors of the American Cancer Society, Tennessee Division.

Dr. William G. Fuqua, Columbia, was guest speaker at the Kiwanis Club on November 1. His subject was "Fedicare."

Dr. Robert H. Haralson, Jr., Maryville, served as alternate director in the House of Delegates of the American Society of Anesthesiologists at its annual session November 2-6.

Dr. Digby G. Seymour, Knoxville, discussed his book entitled "Divided Loyalties—Fort Sanders and East Tennessee in the Civil War" before the Rotary Club.

Three Nashville pediatricians have been elected fellows of the American Academy of Pediatrics. They are: **Drs. Charles S. Hirshberg, W. H. Faulkner,** and **E. E. Caldwell.**

Dr. Richard O. Cannon, Nashville, led a discussion on administrative relationships in a medical center at the Association of American Medical Colleges in Chicago on October 27th.

Dr. B. K. Hibbett, III, became president and **Dr. James W. Ellis** president-elect of the Nashville Obstetrical and Gynecological Society at its meeting on October 15. Other officers are: **Dr. Swan B. Burrus,** secretary, and **Dr. Charles M. Gill,** treasurer.

Dr. Harwell Wilson, Memphis, addressed the Clinical Congress of the American College of Surgeons in San Francisco on October 28th.

Dr. John Q. Adams, Memphis, has been appointed deputy chief of staff of the City of Memphis Hospitals.

Dr. Malcolm Weathers, Loretto, was guest speaker at a recent meeting of the Lioness Club. His topic was the Sabin Oral Vaccine.

Dr. W. M. Phillips, Trenton, spoke on "Practice

by Proxy" before the annual meeting of the Gibson County Tuberculosis and Health Association.

Dr. Walter A. Phillips, general surgeon, has announced plans for establishing a surgical practice in Rogersville.

Dr. C. C. Johnson, Rogersville, has been named co-chairman of the annual fund drive for the Hawkins County Community Chest.

Dr. R. A. Obenour, Knoxville, was guest speaker at a recent meeting of the Lambda Club of Kappa Sigma Fraternity.

Dr. John M. Hickey and **Dr. Charles L. Roach**, Sevierville, participated in a postgraduate course at the Medical College of Georgia.

Dr. Phil B. Bleecker, Memphis, has been elected president of the Memphis Academy of Internal Medicine, succeeding **Dr. L. W. Diggs**. Other new officers are **Dr. J. Purvis Milnor, Jr.**, vice president; **Dr. Charles L. Neely, Jr.**, secretary; and **Dr. Gerald I. Plitman**, treasurer.

Dr. Edward Reisman, Jr. discussed gastric resection and the diet following surgery at the meeting of the Chattanooga Area Dietetic Association on November 5th.

Dr. Roy C. Ellis, Jr., Harrogate, is now associated with **Dr. George L. Day** in the practice of medicine.

Dr. D. Frederick Gioia, Memphis, has been elected chief of the department of surgery at St. Joseph Hospital.

Dr. Robert F. Lash, Knoxville, was guest speaker at a meeting of the Gatlinburg-Pittman High School PTA on October 24th.

Dr. John P. Platt, Johnson City, was elected to the board of directors of the Tennessee Division of the American Cancer Society.

Dr. Tom E. Nesbitt, Nashville, participated in the symposium on medicare, a feature of the ninth annual forensic workshop for mid-state high schools at David Lipscomb College.

Dr. John R. Sheils, a native of New York, will join the staff of the Queen City Infirmary in Tullahoma.

Dr. Joseph Donald Connell, Dyersburg, was guest speaker at the monthly meeting of the Licensed Practical Nurses Society on October 17th.

Dr. R. H. Hutcheson, Nashville, State Commissioner of Health, spoke on "The Challenge of the Revised State Program for Eradication of Tuberculosis" before the annual meeting of the Shelby County Tuberculosis and Health Association.

Dr. Thomas Monroe, Chattanooga, spoke and answered questions after showing a film on cancer at a meeting of the Middle Valley Lioness Club, November 5th.

Drs. Richard O. Bicks, Charles L. Neely and **Morris Pasternack** of Memphis and **Robert C. Hartmann** of Nashville were elected recently as Fellows of the American College of Physicians. **Drs. Hamel B. Eason, Alfred S. Nelson**, and **Jefferson D. Upshaw, Jr.** of Memphis, and **Joseph E. Hurt** of Donelson and **Stephen Schillig** of Nashville were elected as Associates.

ANNOUNCEMENTS

Calendar of Meetings, 1963-64

State

Jan. 22-23, 1964—"Hematologic Workshop on Common Problems in Anemia" —Vanderbilt University School of Medicine, Nashville

Feb. 20, 1964 —"Newer Experiences in Gastroenterology," Vanderbilt University, School of Medicine, Nashville

April 12-15, 1964—Tennessee Medical Association, Annual Meeting, Peabody Hotel, Memphis

Regional

Jan. 5-8, 1964 —Postgraduate Seminar in Anesthesiology—"The Cardio-Vascular System," Eden Roc Hotel, Miami, Florida

Feb. 11-14, 1964—Mid-South Medical Assembly, Peabody Hotel, Memphis

Feb. 12-16, 1964—American College of Cardiology, Roosevelt Hotel, New Orleans

National

Dec. 26-30, 1963—American Association for the Advancement of Science, Cleveland Hotel, Cleveland

Dec. 27-30, 1963—International Convention of Missionary Medicine, Wheaton, Illinois

Jan. 18-23, 1964—American Academy of Orthopaedic Surgeons, Palmer House, Chicago

Jan. 22-25, 1964—Neurosurgical Society of America, Wigwam Hotel, Phoenix, Arizona

Feb. 7-12, 1964 —American Academy of Allergy, San Francisco

Medical College of Georgia and Foundation Present 13 Cardiacs

The department of continuing education of the Medical College of Georgia and Foundation will present 13 cardiacs, January 14-16, 1964. Participants and faculty will be sent case histories complete with x-ray, ECG, and other data. A cardiologist, assigned to each case, will defend his diagnosis and management against any dissenting opinion. Answers will then be demonstrated in the form of autopsy material, physiological data, or medical and surgical therapeutic results.

Registration is limited to a small group for close participant-faculty communication. The fee is $50.00. This course is acceptable for 18 hours of Category I by the American Academy of Gen-

eral Practice. For additional information, contact: Dr. Claude-Starr Wright, Director, Department of Continuing Education, Medical College of Georgia, Augusta.

Postgraduate Course on Nuclear Medicine and Radiation Biology

The American College of Physicians' Postgraduate Course No. 8 on Nuclear Medicine and Radiation Biology will be held January 6-10, 1964, in Los Angeles. Registration forms and requests for information should be directed to: Dr. Edward C. Rosenow, Jr., Executive Director, The American College of Physicians, 4200 Pine Street, Philadelphia 4, Pa.

American College of Allergists

The American College of Allergists Graduate Instructional Course and Twentieth Annual Congress will be held March 1-6, 1964 at The Americana, Bal Harbour, Miami Beach, Florida. For further information write: Dr. John D. Gillaspie, Treasurer, 2141 14th Street, Boulder, Colorado.

Continuation Education Courses University of Tennessee College of Medicine

The following continuation education courses will be offered by the University of Tennessee College of Medicine during 1964. March 9-13—Radiology; March 19-21—Surgery of the Hand; March 25-27—Obstetrics and Gynecology; April 1-3—Pediatric Allergy; May 12-13—Emotional Disturbances in Adolescents; May 13-15—Fractures and Dislocations; May 18-22—Intensive Review of Anesthesiology; July 15-17—Emergencies in Medicine.

For further information contact: Department of Continuing Education, The University of Tennessee, 62 South Dunlap, Memphis, Tennessee.

Physicians Recently Licensed in Tennessee

J. Capers Jones, Murfreesboro
Roy R. Wright, Nashville
Thomas E. Brittingham, Nashville
Johnnie C. Devine, Memphis
Bettye S. C. Schurter, Donelson
Ronald N. Shelley, Norton, Va.
Donald W. Kundel, Memphis
James W. Hunter, Jr., Corinth, Miss.
Frank S. Sikora, Bristol, Va.
Lola N. Vassall, Monterey, Calif.
Robert L. Lawrence, Nashville
Phillip M. Utley, Memphis
Benjamin W. Sharpe, Jr., Brownsville
Herbert H. Bockian, Hermitage
Paulus Zee, New Orleans, La.
James M. Austin, Scotts Hill
Armando F. deVega, Chattanooga
John N. Henry, Durham, N. C.
Charles M. Alderson, Memphis

Vanderbilt University School of Medicine

The Division of Hematology of Vanderbilt University School of Medicine will conduct a "Hematologic Workshop on Common Problems in Anemia" on Wednesday and Thursday, January 22-23. During this two-day period, the problems of etiology, differential diagnosis, laboratory methods, clinical presentations, and therapy of anemias will be considered. Participants will have the opportunity not only to learn about contemporary scientific developments in these anemic states, but also to see clinical material and enter into the laboratory practices used in the study of these diseases. Topics such as iron deficiency, megaloblastic states, and the hemolytic anemias will be covered. Ample time will be allowed for discussion and interrogation.

The course is acceptable for credit by the American Academy of General Practice. Since registration for this course is limited, anyone interested should write the Division of Continuing Education, Vanderbilt University School of Medicine.

1963 MEMBERS OF TENNESSEE MEDICAL ASSOCIATION

The list of members of the Tennessee Medical Association is published in compliance with a provision of the Constitution and By-Laws. The data are accurate as of December 10, 1963. They are arranged in the following order:

List of active members.

Counties arranged alphabetically.

Towns in each county arranged alphabetically and the members in each town arranged alphabetically.

List of members residing outside the state arranged alphabetically.

List of veteran members.

List of members who have died in the year 1963.

ANDERSON COUNTY

Andersonville

E. L. Parrott

Clinton

A. W. Bishop
P. M. Dings
J. S. Hall
Henry Hedden, Jr.
John J. Smith

Norris

S. G. McNeelcy

Oak Ridge

Gould A. Andrews
Robt. P. Ball
R. R. Bigelow
Louis Bryan
Alex G. Carabia
Chas. Congdon
Betty M. Cooper
John P. Crews
Kenneth Crounse
Dexter Davis
John D. DePersio
Roht. E. DePersio
J. L. Diamond
Earl Eversole
T. Guy Fortney
Frank H. Genella, Jr.
Herbert Gerstner
C. B. Gurney
William P. Hardy
J. M. Hays
Ernest L. Hendrix
William B. Holden
R. W. Holland
R. A. Johnson
Harvey Keese, Jr.
Avery P. King
Ralph Kniseley
Thomas A. Lincoln
Lynn F. Lockett
Joseph S. Lyon
Paul R. Marsh
Dana W. Nance
Bill M. Nelson
Etna Little Palmer
Elmer L. Parrott
Lewis F. Preston
William W. Pugh
Charles J. Ragan
Thos. L. Ray
Henry B. Ruley
Kyle O. Rutherford
Beecher W. Sitterson
Paul E. Spray
Charles R. Sullivan
Daniel M. Thomas
Joe E. Tittle
Elsie V. Tompkinson
Andrew S. Wachtel
David A. White
Gino F. Zanolli

Oliver Springs

Fred O. Stone
S. J. Van Hook

BEDFORD COUNTY

Shelbyville

W. L. Chambers
A. L. Cooper
John S. Derryberry
Alfred Farrar
Taylor Farrar
Henry Feldhaus, Jr.
Wallace B. Frierson
Grace Moulder
Carl Rogers
C. T. Stubblefield (Mbr. Warren Co.)
Sara Womack

†Residency

BENTON COUNTY

Camden

Wm. H. Blackburn
J. S. Butterworth
A. T. Hicks
R. L. Horton
John H. Overall, Jr.

BLEDSOE COUNTY

Pikeville

Thomas G. Cranwell (Mbr. Hamilton Co.)
Rufus S. Morgan

BLOUNT COUNTY

Alcoa

Oliver K. Agee
Joe S. Henderson
J. S. Phelan

Louisville

Beulah Kittrell

Maryville

J. H. Bowen
H. A. Callaway, Jr.
Lea Callaway
J. W. Christofferson
Mary D. Cragan
W. C. Crowder
Lynn F. Curtis
W. N. Dawson
Ted L. Flickinger
R. H. Haralson, Jr.
J. S. Henry
James T. Holder
Cecil B. Howard
H. L. Isbell
Edward M. Kelman
E. P. Kintner
Samuel S. Lambeth
Roy W. Laughmiller, Jr.
Julian C. Lentz, Jr.
C. B. Lequire
Robert F. Leyen
F. S. Lovingood
Norman A. McKinnon, Jr.
J. F. Manning
James H. Millard, Jr.
L. Q. Myers
Robert D. Mynatt
Tom Proctor
Robert D. Proffitt
James N. Proffitt
B. P. Ramsey
O. L. Simpson, Jr.
Trent Vandergriff
Lowell E. Vinsant
John A. Yarborough

BRADLEY COUNTY

Calhoun

James L. Allen
I. M. Weir

Cleveland

Robert L. Allen
John M. Appling
D. N. Arnold
Marvin R. Batchelor
Chalmer Chastain, Jr.
Robert H. Cofer
Jack R. Free
Wm. A. Garrott
C. S. Heron
Ivan C. Humphries, Jr.
Frank K. Jones, Jr.
C. H. Kimball
J. C. Lowe
Joseph McCoin
Hays Mitchell
E. Harris Pierce
Wm. I. Proffitt
John A. Rogness
Wm. R. Smith
C. T. Speck, Jr.
W. C. Stanbery
S. J. Sullivan
Claud H. Taylor
James R. Thurman
Madison S. Trewhitt
Gilbert A. Varnell

CAMPBELL COUNTY

Jellico

Charles A. Prater
Ned C. Watts

La Follette

John S. Burrell
J. D. Crutchfield
M. L. Davis
Rob't F. Flemming†
P. T. Howard
P. J. O'Brien
J. W. Presley
John C. Pryse
R. C. Pryse
L. J. Seargeant
Burgin H. Wood†

CANNON COUNTY

Woodbury

William A. Bryant (Mbr. Rutherford Co.)
Russell E. Meyers (Mbr. Rutherford Co.)
R. W. McMullen (Mbr. Rutherford Co.)

CARROLL COUNTY

Bruceton

R. T. Keeton

Huntingdon

R. B. Wilson

McKenzie

E. E. Edwards, Jr.
J. T. Holmes
James H. Robertson

CARTER COUNTY

Elizabethton

Robert J. Allen
Hoyle E. Bowman
Martin Bronson
Richard Bucher
E. L. Caudill, Jr.
George M. Farrow†
W. G. Frost
Clarence E. Goulding, Jr.
Royce Holsey
E. T. Pearson
Dillard Sholes, Jr.
D. J. Slagle
Charles J. Wells
Francis M. Wilson
James M. Willett

CHESTER COUNTY

Henderson

Darrell King
O. M. McCallum
R. L. Wilson

CLAIBORNE COUNTY

New Tazewell

Fred Reed (Mbr. Knox Co.)
Wm. N. Smith (Mbr. Knox Co.)
Jean C. Tarwater (Mbr. Knox Co.)

COCKE COUNTY

Newport

W. E. McGaha
Robert B. McMahan
Drew A. Mims
Wm. B. Robinson
Glen C. Shults
Fred M. Valentine
Fred M. Valentine, Jr.

COFFEE COUNTY

Manchester

Clarence H. Farrar
Howard A. Farrar
Lawrence G. Gardner
John A. Shields
Coulter S. Young

Tullahoma

R. L. Brickell
Jack T. Farrar
B. E. Galbraith
Edwin E. Gray, Jr.
Charles B. Harvey
J. M. King
Earl E. Roles, Jr.
C. C. Snoddy
Chas. Harry Webb

CROCKETT COUNTY

Alamo

E. O. Prather, Jr.

Bells

Charles N. Hickman
R. W. Mayfield
Wm. R. Sullivan

CUMBERLAND COUNTY

Crossville

James T. Callis
R. Gene Cravens
Paul A. Erwin, Jr.
Wm. E. Evans
R. Donathan Ivey
R. G. Kloss
H. F. Lawson
Robert M. Metcalfe
Stuart P. Seaton

Pleasant Hill

L. A. Chrouch
Margaret K. Stewart

DAVIDSON COUNTY

Donelson

E. E. Anderson
Luther A. Beazley
R. B. Gaston
C. N. Gessler
Chas. H. Huddleston
Joseph E. Hurt
Joe M. Miller
James B. Millis
Luther E. Smith
Wm. B. Wadlington
John M. Wilson (Mbr. Greene Co.)

Goodlettsville

James S. Hastie

Madison

William J. Card
Sam W. Carney, Jr.
Frederick B. Cothren
George B. Hagan
J. Wesley Osborne (Mbr. Sumner Co.)
Jefferson C. Pennington, Jr.
Robt. L. Pettus, Jr.
D. R. W. Shupe
Joe E. Sutherland
Harry Witztum

Madison College

Hillis F. Evans
Julian C. Gant
Cyrus E. Kendall

Nashville

Crawford W. Adams
R. W. Adams, Jr.
J. W. Alford, Jr.
Wm. E. Allison
J. Clyde Alley, Jr.
Ben J. Alper
W. L. Alsobrook
Arthur R. Anderson
Edwin B. Anderson
H. R. Anderson
J. Sumpter Anderson, Jr.
Roht. S. Anderson
J. J. Ashby
Harry Baer (Mbr. Coffee Co.)
J. Mansfield Bailey (Mbr. Wilson Co.)
Joseph J. Baker
Thurman Dee Baker
Sidney W. Ballard
Preston H. Bandy
Edwin H. Barksdale
Allan D. Bass
Gustav A. Batizy
Randolph Batson
David S. Bayer
Eric Bell, Jr.
Lynch D. Bennett
Edmund W. Benz
Stanley Bernard
John H. Beveridge
Otto Billig
F. T. Billings, Jr.
Geo. T. Binkley, Jr.
Russell T. Birmingham
Eugene L. Bishop, Jr.
Lindsay K. Bishop
Frank M. Blackwell
James B. Boddie, Jr.
Michael A. Bokat
John B. Bond
Walter A Bonney, Jr.
Geo. W. Bounds, Jr.
John M. Boylin
H. B. Brackin
H. B. Brackin, Jr.
Cloyce F. Bradley
G. Hearn Bradley
David V. Bradley
James M. Brakefield
T. F. Bridges
Thos. E. Brittingham
Arthur L. Brooks
Dorothy L. Brown
M. F. Brown (Mbr. Lincoln Co.)
J. Thomas Bryan
John C. Burch
Joseph G. Burd
R. N. Buchanan, Jr.
Roger B. Burrus
Swan B. Burris
B. F. Byrd, Jr.
James J. Callaway
Richard O. Cannon
Joe M. Capps
George K. Carpenter
G. K. Carpenter, Jr.
Oscar W. Carter
Norman M. Cassell
W. R. Cate
John S. Cayce
Lee F. Cayce
Robert L. Chalfant
Eric M. Chazen
Abraham P. Cheij
Amos Christie
William M. Clark
Jeannine A. Classen
Kenneth L. Classen
Everett M. Clayton, Jr.
Cully A. Cobb, Jr.
Robert T. Cochran
Henry A. Cohen
John H. Coles, III
Harold A. Collins
George E. Cooke
W. J. Core
Orrie A. Couch, Jr.
Sam C. Cowan, Jr.
Frederic E. Cowden
Geo. Boyd Crafton
H. James Crecraft
R. R. Crowe
E. Perry Crump
W. Andrew Dale
Rollin A. Daniel, Jr.
Wm. J. Darby
Philip V. Daugherty
Michael D. Davis
G. Wm. Davis
T. W. Davis
Thomas C. Delvaux, Jr.
Wm. A. Demonbreun
Harold C. Dennison
Walter L. Diveley
Wm. M. Doak
Wm. D. Donald
Earl D. Dorris
Robert T. Doster
L. Rowe Driver
Ray L. Dubnisson
Price H. Duff
Worth I. Dunn
George E. Duncan
Herbert Duncan
Wm. H. Edwards
Lloyd C. Elam
Paul Elcan, D.D.S.
Phillip C. Elliott
James W. Ellis
Irwin B. Eskind
Harry M. Estes
E. Wm. Ewers
Don L. Eyler
Wm. T. Farrar
John L. Farringer, Jr.
W. B. Farris
W. F. Faulk, Jr.
W. H. Faulkner
R. O. Fessey
Jacob N. Fidelholtz
John P. Fields
Robert M. Finks
John M. Flexner
Robert M Foote
Howard R. Foreman
Garth E. Fort
John H. Foster
S. Benjamin Fowler
Richard France
Horace M. Frazier
John W. Frazier, Jr.
Thomas F. Frist
James L. Fuqua
Robert K. Galloway
Chas. K. Gardner
James C. Gardner
Sam Y. Garrett
Hamilton V. Gayden
Horace C. Gayden
Charles M. Gill
L. P. Glover, Jr.
John R. Glover
Fred Goldner, Jr.
James E. Goldsberry
David K. Gotwald
Louis S. Graham, Jr
Burton P. Grant†
Herschel A. Graves, Jr.

Paul A. Green, Jr.
Clifton E. Greer, Jr.
John W. Griffith, Jr.
John H. Griscom
Thos. W. Grizzard
Laurence A. Grossman
Milton Grossman
Wm. E. Gupton, Jr
Arnold Haber, Jr.
David W. Hailey
Chas. E. Haines, Jr.
Wallace H. Hall, Jr.
Thos. B. Haltom
Chas. M. Hamilton
J. R. Hamilton
W. M. Hamilton
Roy G. Hammonds
Axel C. Hansen
Jackson Harris
E. F. Harrison (Mbr. Hamilton Co.)
Robt. C. Hartmann
A. B. Harwell
James T. Hayes
John H. L. Heintzelman
James B. Helme
J. L. Herrington, Jr.
John G. Herzfeld
B. K. Hibbett, III
J. B. Hibbitts, Jr.
William Higginson
Elmore Hill, D.M.D.
I. R. Hillard
John W. Hillman
R. H. Hirsch (Mbr. Robertson Co.)
Chas. S. Hirshberg
Charlie Joe Hobdy
Geo. W. Holcomb Jr.
Chas. F. Hollabaugh
W. W. Hubbard
James M. Hudgins
Granville W. Hudson
R. H. Hutcheson, Jr
Vernon Hutton, Jr.
Maurice Hyman
M. D. Ingram, Jr.
Albert P. Isenhour, Jr.
J. McK. Ivie
J. Kenneth Jacobs
W. F. B. James
John A. Jarrell, Jr.
D. J. Johns
Alfonso P. Johnson
Hollis E. Johnson
Ira T. Johnson, Jr.
James W. Johnson
Chambliss R. Johnston
Edmund P. Jones
John R. Jones
Orrin L. Jones, Jr.
T. M. Jordan
R. H. Kampmeier
Herman J. Kaplan
A. E. Keller
J. Allen Kennedy
Wm. G. Kennon, Jr.
John P. Kinnard, Jr.
Lowry D. Kirby
Carl T. Kirchmaier
J. A. Kirtley, Jr.
Eugene C. Klatte
Walter O. Klingman
O. Morse Kochtitzky
Leonard J. Koenig
Lee F. Kramer
C. J. Ladd, D.D.S.
Roland D. Lamb
Ralph M. Larsen
Horace T. Lavely, Jr.
David H. Law
A. R. Lawson
G. Allen Lawrence
Jas. D. Lester
Patrick R. Levesque
Malcolm R. Lewis
Milton S. Lewis
Grant W. Liddle
Richard C. Light
Joanne Linn
Robert J. Linn
A. B. Lipscomb
Joseph A. Little
Thomas C. Littlejohn
Jackson P. Lowe
S. L. Lowenstein
Frank H. Luton

*In Service

Philip L. Lyle
Robt. H. Magruder
Guy Milford Maness
W. R. Manlove, Jr.
Edw. H. Martin, D.D.S.
Travis H. Martin
Ralph W. Massie
Jas. Andrew Mayer
Ben R. Mayes
Charles W. MacMillan
Robert D. Macmillan
Curtis P. McCammon
G. S. McClellan
Robt. E. McClellan
C. C. McClure, Jr.
Robt. L. McCracken
M. Chas. McMurray
Barton McSwain
Wm. F. Meacham
Arnold M. Meirowsky
Andrew H. Miller
Cleo M. Miller
James B. Miller
Lloyd C. Miller
Edwin H. Mitchell
Thomas F. Mogan
R. W. Money
C. Calvin Moore
Harry T. Moore, Jr.
Theodore Morford
N. B. Morris
P. G. Morrissey, Jr.
M. K. Moulder
I. Armistead Nelson
Dewey Nemec
Tom E. Nesbitt
E. V. Newman
Oscar F. Noel
Margaret S. Norris
Robert W. Noyes
Wm. T. Nunes
John R. Olson
Wm. F. Orr, Jr.
James C. Overall
Fred W. T. Overton
Fred D. Ownby
Richard P. Ownbey
Homer M. Pace, Jr.
Thomas F. Paine, Jr.
Roy Wm. Parker
Thomas F. Parrish
Bernard J. Pass
R. C. Patterson, Jr.
C. Gordon Peerman, Jr.
Edna S. Pennington
Thos. Guv Pennington
George L. Perler
Frank A. Perry
M. A. Petrone
James M. Phythyon
David R. Pickens, Jr.
Charles B. Pittinger
Phillip P. Porch, Jr.
T. Edward Potts
Robert W. Quinn
James Seay Read
Robert M. Reed
John D. Reese
E. M. Regen
Eugene M. Regen, Jr.
S. C. Reichman
Roy J. Renfro
Vernon H. Reynolds
John R. Rice
Greer Ricketson
Douglas H. Riddell
Elkin L. Rippy
S. S. Rlven
Joseph D. Robertson
David E. Rogers
D. T. Rolfe
Marvin J. Rosenblum
Sol A. Rosenblum
Louis Rosenfeld
P. M. Ross
Fred A. Rowe, Jr.
Robert M. Roy
Lenor de Sa Ribeiro
Robert N. Sadler
Louis Sampson
Dan S. Sanders, Jr.
Houston Sarratt
Elwyn A. Saunders
John L. Sawyers
J. H. Savers, Jr.
C. David Scheibert
Stephen Schillig, Jr.

Jack C. Schmitt, D.D.S.
Lawrence G. Schull
Herbert J. Schulman
H. Wm. Scott, Jr.
A. B. Scoville, Jr.
C. Gordon Sell
John L. Shapiro
Harry S. Shelley
Ben A. Shelton
Wm. F. Sheridan, Jr.
Abram C. Shmerling
N. S. Shofner
Brian T. Shorney
Harrison H. Shoulders, Jr.
Harrison J. Shull
Burton Silbert
T. E. Simpkins
Wm. T. Slonecker
Chas. B. Smith
Dangh W. Smith
Henry C. Smith
Marion L. Smith
Bertram E. Sprofkin
Daphine Sprouse
Richard L. Steele
Sam E. Stephenson, Jr.
Joseph Steranka
Lee Wm. Stewart
Frank W. Stevens
Hugh L. C. Stevens
William S. Stoney
Joe M. Strayhorn
W. D. Strayhorn
Wilborn D. Strode
Wm. D. Sumpter, Jr.
Arthur J. Sutherland
Richard P. Taber
G. J. Tarleton, Jr.
John M. Tanner
Ed L. Tarpley
Pauline Tenzel
Robert T. Terry
Andrew B. Thach, Jr.
C. S. Thomas
J. N. Thomasson
John B. Thomison
Chas. B. Thorne
Spencer Thornton
W. O. Tirrill, Jr.
Kirkland W. Todd, Jr.
Robt. H. Tosh
C. C. Trabue, IV
Leslie E. Tranghber, Jr.
Carr A. Treherne
C. B. Tucker
John M. Tudor
Wm. O. Vaughan
Ethel Walker
Matthew Walker
John M. Wampler
James W. Ward
Russell D. Ward
Thomas F. Warder
Paul L. Warner
Thomas S. Weaver
B. H. Webster
Bernard Weinstein
Charles E. Wells
A. Lawrence White
Frank E. Whitacre
Joe T. Whitfield
Earl E. Wilkinson
Edwin L. Williams
W. Carter Williams (Mbr. Smith Co.)
W. Carter Williams, Jr.
Frank G. Witherspoon
Norman E. Witthaner
Frank C. Womack, Jr.
C. C. Woodcock
M. C. Woodfin
John R. Woods
John L. Wyatt
John B. Youmans
Kate Savage Zerfoss
Thomas B. Zerfoss
Thos. B. Zerfoss, Jr

Old Hickory

T. D. Dailey
E. P. Johnson
James K. Lawrence
R. P. Miller
Henry D. Murray
Howard C. Pomeroy
E. B. Rhea
W. W. Wilson

DECATUR COUNTY

Parsons

H. L. Conger

DEKALB COUNTY

Alexandria

H. Odell Mason (Mbr. Smith Co.)

DICKSON COUNTY

Charlotte

James C. Elliott

Dickson

J. T. Allen
W. A. Bell, Jr.
Mary Baxter Cook
W. A. Crosby
J. T. Jackson
Lawrence C. Jackson
Lawrence R. Jackson
W. M. Jackson
E. W. McPherson

DYER COUNTY

Dyersburg

W. E. Anderson
J. Paul Baird
Keim Baird*
Thos. V. Banks
James W. Bonds
J. D. Connell
P. A. Conyers
W. E. David
Huey T. Holt*
Thomas W. Johnson
Robert T. Kerr
O. B. Landrum
Fred Moore
J. C. Moore
J. G. Price
R. David Taylor
W. I. Thornton, Jr.
L. A. Warner, Jr.
Lydia V. Watson

Newbern

Wm. L. Phillips
P. B. Widdis

Trimble

V. Art Murphy

FAYETTE COUNTY

Somerville

John L. Armstrong
John M. Bishop
Frank S. McKnight
Lloyd H. Plemmons
Lee Rush, Jr.

FENTRESS COUNTY

Jamestown

B. Fred Allred
Guy C. Pinckley
Jack C. Smith
Shelby O. Turner

FRANKLIN COUNTY

Decherd

P. J. Flippin
Dewey W. Hood

Huntland

L. J. Stubblefield (Mbr. Lincoln Co.)

Sewanee

Ruth A. Cameron
Charles B. Keppler
E. W. Kirby-Smith
H. T. Kirby-Smith
J. L. Parsons, Jr.

Winchester

Jo C. Anderton
Reynolds Fite
Gerald E. Johnson
George L. Smith
James Van Blaricum

GIBSON COUNTY

Dyer

John W. Ellis

Humboldt

H. G. Barker
Chas. W. Davis
A. H. Fick
J. W. Oursler
Wm. H. Roberts
Jas. D. Rozzell
George E. Spangler

Medina

Robert Morris

Milan

H. P. Clemmer
James O. Fields
F. L. Keil
James H. Williams
Philip G. Williams

Trenton

Edw. C. Barker
E. C. Crafton
James W. Hall
Wm. M. Phillips

Yorkville

Bill Murray

GILES COUNTY

Ardmore

C. B. Marshall (Mbr. Lincoln Co.)

Pulaski

Robert B. Agee
K. M. Kressenberg
W. K. Owen
J. U. Speer
D. M. Spotwood

GRAINGER COUNTY

Rutledge

L. C. Bryan (Mbr. Hamblen Co.)
T. J. Hill (Mbr. Hamblen Co.)

Washburn

Robt. J. Phlegar (Mbr. Hamblen Co.)

GREENE COUNTY

Greeneville

V. R. Bottomley
Robert G. Brown
Robt. S. Cowles, Jr.
Luke L. Ellenburg
Haskell W. Fox
R. B. Gibson
C. H. Helms
Hal Henard
N. P. Horner
C. D. Huffman
A. K. Husband (Mbr. Cumberland Co.)
Y. A. Jackson
Ben J. Keebler
C. B. Laughlin
Haskell B. McCollum
W. Lewis McGuffin
James R. McKinney
Kenneth C. Susong

Mosheim

I. Dale Brown
G. R. Evans

HAMBLEN COUNTY

Morristown

W. K. Alexander
Lee R. Barclay
Howard T. Brock
Robert L. Brown
John D. Caldwell
Kemp Davis
C. J. Duby
Y. Alvin Jackson
John Kinser
F. J. Little, Jr.
E. Gene Lynch
L. W. Nabers
John L. Pearce
J. W. Richardson
Charles S. Scott
Powell M. Trusler

HAMILTON COUNTY

Chattanooga

Chester G. Adams
Jesse E. Adams
John W. Adams, Jr.
Julian Adams
Wm. P. Aiken
C. H. Alper
E. R. Anderson
Harry S. Anderson
J. J. Armstrong
I. L. Arnold
Stewart H. Auerbach
Merton Baker
Robert E. Baldwin
Fred B. Ballard, Jr.
Woodruff A. Banks, Jr.
H. B. Barnwell
George E. Beckman, Jr.
Samuel S. Binder
W. R. Bishop
Robt. W. Boatwright
Robert J. Boehm
Walter E. Boehm
Wm. D. Brackett
Frank S. Brannen
Roger Breytspraak
J. C. Brooks, Jr.
Reid L. Brown
Edward F. Buchner, III
Arch H. Bullard
John A. Burke
Thomas L. Buttram
W. R. Buttram
W. R. Buttram, Jr.
Earl R. Campbell
Earl R. Campbell, Jr.
Don A. Cannon
Maurice A. Canon
E. E. Carrier
John P. Carter
Bennett W. Caughran
Douglas Chamberlain
Edwin F. Chobot, Jr.
Charles R. Clark
Robert B. Clark, III
O. H. Clements
Frank C. Combes
J. Hicks Corey, Jr.
Dennis M. Cornett
George E. Cox
John M. Crowell
Tolbert C. Crowell
Doyle E. Currey
J. Tom Currey
Thos. H. Curtis
James W. Davis*
O. M. Derryberry
Robt. G. Demos
Joseph J. Dodds
Richard B. Donaldson
James R. Drake
Albert S. Easley
A. F. Ebert
Bruce Elrod
John T. Evans
Robt. E. Eyssen
J. R. Fancher
George W. Farris
Richard Van Fletcher
Malcolm S. Floyd
A. C. Ford
Daniel H. Framm
Guy M. Francis
J. Marsh Frere
Augustus H. Frye, Jr.
O. C. Gass
G. C. Gibson, Jr.
Robt. H. Giles, Jr.
E. Wayne Gilley
Paul M. Golley
Kenneth N. Gould
Al W. Gothard
Frank B. Graham
Joseph W. Graves
Wm. R. Green

T. A. Grubbs, Jr.
F. Russell Hackney
Robert B. Hagood
Alton G. Hair
Foster Hampton, Jr.
John C. Hampton
H. Barlow Harris
Carl A. Hartung
Chas. W. Hawkins
James M. Hays
James R. Headrick
James W. Hedden
Robt. S. Hellman
H. B. Henning
Warren B. Henry
George K. Henshall, Jr.
Homer D. Hickey
John M. Higgason
J. M. Higginbotham
J. F. Hobbs
Richard G. Hofmeister
Pope B. Holliday Jr.
H. W. Hollingsworth
Benton B. Holt, Jr.
C. M. Hooper
Rudolph Hoppe
Don R. Hornsby
John O. House
W. P. Hutcherson
D. Isbell
DeWitt B. James
Harry E. Jones
Edward G. Johnson
Joseph W. Johnson, Jr.
J. E. Johnson
J. Paul Johnson
J. Paul Johnson, Jr.
D. B. Karr
John J. Killeffer
John E. Kimball, Jr.
C. Windom Kimsey
Warren H. Kimsey
Clyde R. Kirk
Durwood L. Kirk
Gene H. Kistler
Rudolph M. Landry
Fred D. Lansford, Jr.
Chester L. Lassiter
Lawrence H. Lassiter
Joseph V. Lavecchia, Jr.
Stewart Lawwill
Stewart Lawwill, Jr.
Willis E. Lemon
Philip H. Livingston
H. D. Long
Ira M. Long
Thos. S. Long
Robt. E. Mabe
Wm. B. MacGuire, Jr.
T. J. Manson
S. S. Marchbanks
C. B. C. Marsh
Fred E. Marsh
Cooper H. McCall
David P. McCallie
Augustus McCravey
Preston C. McDow
George R. McElroy
J. Edward McKinney
H. C. Miles,
Robert T. Miller
George A. Mitchell
Thomas C. Monroe
T. F. Mullady, III
Fay B. Murphey, Jr.
Oscar B. Murray
Robt. W. Myers
Marvin M. Nathan
Merrill F. Nelson
Cecil E. Newell
E. T. Newell
E. T. Newell, Jr.
Paul V. Nolan
Robert N. Osmundsen
Wm. C. Pallas *
A. M. Patterson
R. L. Patterson
E. White Patton
Millard F. Perrin,
Walter A. Peterson Jr.
W. Houston Price
Jesse O. Quillian
Joe Anne Quillian
Maurice Rawlings
Chas. J. Ray

*In Service

Chas. W. Reavis
W. D. L. Record
E. E. Reisman, Jr.
James E. Reynolds
Gilbert M. Roberts, Jr.
Robert C. Robertson
Alfred P. Rogers
James R. Royal
Don J. Russell
Lewis A. Schmidt, III
H. A. Schwartz
Clarence Shaw
George W. Shelton
W. J. Sheridan
Edwin H. Shuck, Jr.
Harold G. Sibold
George L. Sivils
Francis J. Smiley
Moore J. Smith, Jr.
Stewart P. Smith
Philip C. Sottong
Robert T. Spalding
James H. Spaulding
Richard F. Stappenbeck
Eleanor Stafford
Harold J. Starr
Willard Steele
Willard H. Steele, Jr.
William A. Stem
Wm. G. Stephenson
Joseph H. Stickley
J. E. Strickland, Jr.
Harry A. Stone
Wesley Stoneburner
Mary E. Stroud
Nat H. Swann, Jr.
Charles L. Suggs, Jr.
Bernard Tepper
Jack Tepper
Marjorie Tepper
Guy K. Terrell
Chas. Roberts Thomas
Paul C. Thompson
Robt. C. Thompson
David H. Turner
A. S. Ulin
Louis Ulin
Minnie R. Vance
Wm. E. Van Order
Gus J. Vlasis
O. L. Von Canon
Muriel E. Von Werssowetz
Odon F. Von Werssowetz
James P. Wallace
Robert A. Waters
L. Spires Whitaker
Jesse L. Williams, Jr.
Nat T. Winston, Jr.
Julian M. Yood
George G. Young
Marion M. Young
Guy Zimmerman, Jr.
Joseph I. Zuckerman

Hixson

Nicholas B. Norris, Jr.
Robert J. Pitner

LOOKOUT MOUNTAIN

James L. Caldwell
Dean W. Golley (Mbr. Rutherford Co.)

SIGNAL MOUNTAIN

M. F. Langston
Arch Y. Smith

Soddy

Ann Hallett

HARDEMAN COUNTY

Bolivar

D. L. Brint
H. H. Barham
Charles Frost
Edwin M. Levy
B. F. McAnulty
J. Knox Tate

Whiteville

Aubrey Richards

HARDIN COUNTY

Saltillo

Howard W. Thomas

Savannah

H. D. Blankenship, Jr.
J. W. Carroll
R. B. Deberry
Thos. V. Roe
Howard W. Whitaker, Jr.
Thomas R. Williams

HAWKINS COUNTY

Church Hill

Warner L. Clark (Mbr. Sullivan-Johnson)
T. H. Roberson, Jr. (Mbr. Sullivan-Johnson)

Eidson

John M. Pearson

Rogersville

William E. Gibbons
Charles C. Johnson
W. H. Lyons

HAYWOOD COUNTY

Brownsville

H. L. Gilliand
Sue W. Johnson
David E. Stewart
John C. Thornton, Jr.
J. K. Welch, Jr.

HENDERSON COUNTY

Lexington

R. M. Conger
C. J. Huntsman
W. F. Jones, Jr.
Maurice N. Lowry
W. C. Ramer
J. C. Stripling

HENRY COUNTY

Paris

Arthur C. Dunlap
Ralph L. Eslick
R. Graham Fish
I. H. Jones
E. P. Mobley, Jr.
Joe D. Mobley
John E. Neumann
W. G. Rhea
Kenneth G. Ross
J. Ray Smith
Thomas C. Wood

HICKMAN COUNTY

Centerville

Parker D. Elrod
Ogle Jones

HOUSTON COUNTY

Erin

O. S. Luton (Mbr. Montgomery Co.)
Albert J. Mitchum (Mbr. Montgomery Co.)

HUMPHREYS COUNTY

New Johnsonville

James John Lawson

Waverly

H. C. Capps
Autry C. Emmert
Dorris A. Sanders
Joseph W. Stephens
Arthur W. Walker

JACKSON COUNTY

Gainesboro

W. T. Anderson
E. Morgan Dudney
L. R. Dudney
Jack S. Johnson

JEFFERSON COUNTY

Dandridge

O. L. Merritt (Mbr. Hamblen Co.)

Jefferson City

John W. Ellis (Mbr. Hamblen Co.)
Sam C. Fain (Mbr. Hamblen Co.)
Frank Milligan (Mbr. Hamblen Co.)
Estle P. Muncy (Mbr. Hamblen Co.)
Cecil D. Rowe (Mbr. Hamblen Co.)
J. B. Sams (Mbr. Hamblen Co.)

Strawberry Plains

Robert W. Creech (Mbr. Knox Co.)
R. M. Webster (Mbr. Knox Co.)

White Pine

E. Dale Allen (Mbr. Hamblen Co.)
E. R. Baker (Mbr. Hamblen Co.)

JOHNSON COUNTY

Mountain City

Paul J. Bundy
R. O. Glenn

KNOX COUNTY

Concord

Malcolm Cobb
R. H. Duncan
B. D. Goodge

Corryton

A. D. Simmons

Fountain City

George L. Fillmore
A. L. Jenkins
F. H. Payne
J. Gordon Smith

Knoxville

Eugene Abercrombie
Alton Absher
N. D. Acree, Jr.
J. E. Acker, Jr.
T. Edward Acuff
Robert L. Akin
Charles M. Armstrong
Edmund B. Andrews
John W. Avera
Anne B. Avery
Robert M. Baker
O. E. Ballou
Floyd N. Bankston
Walter C. Beahm
Daniel F. Beals
Spencer Y. Bell
Bruce B. Bellomy
Walter H. Benedict
Chas. W. Black
Joe W. Black, Jr.
Wade H. Boswell
H. O. Bourkard
Jacob T. Bradsher
Richard F. Brailey
Aubra D. Branson
Robert G. Brashear
Robert J. Brimi
Clayton M. Brodine
Robert T. Brooks
Fred F. Brown, Jr.
Horace E. Brown
Raymond C. Bunn
James A. Burdette
John H. Burkhart
Wm. G. Byrd
J. Ed Campbell
John W. Campbell
Clyde L. Capps
P. H. Cardwell
C. S. Carlson
Frederick W. Carr
L. G. Caylor
Jack Chesney
L. Warren Chesney
H. S. Christian
H. E. Christenberry, Jr.
K. W. Christenberry
W. F. Christenberry
C. L. Chumley
William E. Clark
Edward S. Clayton
H. G. Coker
I. Reid Collman
Edward D. Connor
Margherita C. Cook
David A. Corey
Dennis Coughlin, Jr.
M. L. Courtney
James B. Cox
Richard C. Crain
John J. Craven
William R. Cross
Miles S. Crowder
Joe C. Crumley
J. P. Cullum
H. K. Cunningham
C. Harwell Dabbs
Elvyn V. Davidson
Daniel Davis
Lloyd C. Davis
Martin Davis
Oliver DeLozier
R. V. DePue, Jr.
W. A. DeSautelle
A. W. Diddle
Sheldon Domin
Lucile Dooley
W. F. Dorsey
John H. Dougherty
James E. Downs
Mary Brock Duffy
James B. Dukes
Chas. R. Earnest, Jr.
E. M. Edington
Edward W. Ellis
James B. Ely
Frank A. Faulkner
Mark P. Fecher
George H. Finer
J. Marsh Frere, Jr.
Fred M. Furr
Wm. F. Gallivan
Jos. C. Gambill
Frank B. Gaylon, Jr.
Joseph I. Garcia, Jr.
Wm. H. Gardner
George L. Gee, Jr.
Robert H. Gentry
J. Vivian Gibbs
Carl E. Gibson
Robt. B. Gilbertson
Abner M. Glover
McChesney Goodall
Glenn D. Grubb
James R. Guyton, Jr.
T. F. Haase, Jr.
J. R. Hamilton, Jr.
Walter S. E. Hardy
James P. Harmon
David N. Hawkins
Eugene L. Haun
J. T. J. Hayes, Jr.
M. L. Hefley
N. A. Henderson
George G. Henson
Zelma L. Herndon
Howard K. Hicks
Hubert C. Hill
John R. Hill
Oliver W. Hill, Jr.
Victor Hill
R. L. Hobart, Jr.
David F. Hoey
Leon C. Hoskins
George Turner Howard, Jr.
Moses W. Howard
Fred E. Hufstedler
Perry M. Huggin
Charles C. Hutson
E. C. Idol
Geo. L. Inge
C. E. Irwin
Harry H. Jenkins
Joe Breese Johnson (Mbr. Wash.-Carter-Unicoi)
Francis S. Jones
Paul L. Jourdan
Margaret E. Joyce
William M. Keeling
A. Pat Kelly
H. M. Kelso
A. Glenn Kennedy
John O. Kennedy
John E. Kesterson
Stacy H. Kinlaw
Victor H. Klein, Jr.
Lamar L. Knight
Willis F. Kraemer
Wm. G. Laing
A. Hobart Lancaster
Robert F. Lash
William M. Law
F. K. Lawson
Robert P. Layman
Robert S. Leach
Walter J. Lee, Jr.
R. J. Leffler
John H. Lesher
Robert A. Lewis
Felix G. Line
Thomas L. Lomasney
Frank London
Henry H. Long
Geo. S. Mahon
Margaret Maynard
Bruce R. McCampbell
Roy C. McCrary
A. R. McCullough
M. D. McCullough
Joseph S. McMurry
Robert W. Meadows
Alfred F. Miller
Edwin E. Miller
Foy B. Mitchell
Jack M. Mobley
John F. Mohr
Ralph H. Monger
J. L. Montgomery
John D. Moore
Owen D. Moore
Travis Morgan
Robt. W. Morris
J. F. Morrow
James E. Moseley
Arthur J. Muller
G. E. Murray
William S. Muse
James D. Myers
J. B. Naive
Carl A. Nelson, Jr.
John R. Nelson, Jr.
William A. Nelson
H. L. Neuenschwander
Robert W. Newman
Eugene P. Niceley
Hazel M. Nichols
Ralph G. Nichols
G. T. Novinger
Elvin B. Noxon
Kenneth A. O'Connor
R. A. Obenour
Harry K. Ogden
Homer C. Ogle
B. M. Overholt
Nicholas D. Pappas
Reese W. Patterson, Jr.
Robert F. Patterson, Jr.
Wm. L. Patterson
Charles G. Peagler
E. Converse Peirce
Herschel Penn
Jarrell Penn
H. Dewey Peters
B. F. Peterson
Ira S. Pierce
Cecil E. Pitard
W. W. Potter
William F. Powell
Bruce R. Powers
Wilson W. Powers
H. Hammond Pride
Thomas C. Prince, Jr.
James C. Prose
John A. Range
Joe L. Raulston
Freeman L. Rawson
W. Gilmer Reed
Wm. H. Reeder
James P. Richards
Paul D. Richards
N. G. Riggins
Frank T. Rogers
Wm. K. Rogers
Kenneth B. Rule
Richard C. Sexton
Digby G. Seymour
J. H. Saffold
Karl T. Sammons
Wm. A. Shelton
Alex B. Shipley
Elton E. Shouse, Jr.
Kenneth Shoemaker
E. Chas. Sienknecht
Frank J. Slemons
Chas. C. Smeltzer
E. B. Smith
Joe T. Smith
Vernon I. Smith
W. E. Smith
John R. Smoot

James L. Southworth
Bernard G. Stall, III
J. Hooper Stiles, Jr.
J. M. Stockman
Thos. F. Stevens
Wm. K. Swann, Jr.
E. L. Tauxe
Dale A. Teague
D. R. Thomas
Philip C. Thomas
Wm. M. Tipton
Lucian W. Trent
Geo. M. Trotter
M. Frank Turney
Norma B. Walker
Calvin R. Wallace
Sidney L. Wallace
C. L. Walton
R. G. Waterhouse
J. H. Waters, Jr.
David H. Waterman
Glenn F. Watts
Alvin J. Weber, Jr.
Roy A. Wedekind, Jr.
Arthur W. Welling
Fred West
Herbert F. White
Roger E. White
Robert B. Whittle
Richter H. Wiggall
Richard B. Willingham
Lee L. Williams
M. L. Williams
G. A. Williamson, Jr.
Perry J. Williamson
Leon J. Willien
Stephen G. Wilson, Jr.
J. D. Winebrenner
John H. Wolaver
R. B. Wood
James P. Worden
O. Horace Yarberry, Jr.
Vernon H. Young
Vincent T. Young
Eugene G. Zachary
Charles R. Zirkle
George A. Zirkle, Jr.

Mascot

John C. Adler
Hubert Howard Vesser, Jr.

Powell Station

L. F. Cruze

LAKE COUNTY

Ridgely

W. B. Acree

Tiptonville

J. R. Holefield
E. B. Smythe

LAUDERDALE COUNTY

Halls

J. T. Elmore
J. G. Olds

Ripley

A. J. Butler, Jr.
J. L. Dunavant
James Howard Ragsdale
P. W. Walker, Jr.
Claude R. Webb

LAWRENCE COUNTY

Lawrenceburg

V. H. Crowder
W. O. Crowder
J. W. Danley
Boyd P. Davidson
Norman Henderson
James C. Hudgins, Jr.
L. B. Mollov
V. L. Parrish
W. S. Sutherland
Carson E. Taylor

Loretto

Ray E. Methvin
M. H. Weathers

LEWIS COUNTY

Hohenwald

Edgar D. Akin
Don L. Gaines
B. J. Smith

LINCOLN COUNTY

Fayetteville

Anne U. Bolner
L. M. Donaldson
William D. Jones
Ben H. Marshall
Robert E. McCown
J. V. McRady
T. A. Patrick, Jr.
C. D. Toone
Paul E. Whittemore

LOUDON COUNTY

Lenoir City

Harold D. Freedman (Mbr. Knox Co.)
Walter C. Shea, Jr.
R. V. Taylor (Mbr. Knox Co.)
A. Neal Ward (Mbr. Knox Co.)

Loudon

Corrie Blair (Mbr. Knox Co.)
Samuel A. Harrison (Mbr. Knox Co.)
W. B. Harrison (Mbr. Knox Co.)
Wm. T. McPeake (Mbr. Knox Co.)
J. R. Watkins (Mbr. Knox Co.)

MACON COUNTY

Lafayette

C. C. Chitwood, Jr.
Jack C. Clark
E. M. Froedge
Max E. Painter

MADISON COUNTY

Bemis

R. T. Tucker, Jr.
Allen N. Williams, Jr.

Jackson

Harold K. Alsobrook
Thomas K. Ballard
R. J. Barnett
G. H. Berryhill
Jack H. Booth
Wm. H. Brooks
Swan Burrus
Swan Burrus, Jr.
Hughes Chandler
Wm. G. Crook
G. B. Dodson, Jr.
J. E. Douglass
Roy A. Douglass, Jr.
Clarence Driver
E. W. Edwards
Blanche Somerville Emerson
Blair D. Erb
W. T. Fitts
Fred M. Friedman
Oliver H. Graves
W. W. Harrison
Geo. Harvey, Jr.
Bobby C. Higgs
Robert S. Hill
C. L. Holmes
G. B. Hubbard
Chester K. Jones
G. Frank Jones
Leland M. Johnston
Duval H. Koonce
James D. Lane
James A. Langdon, Jr.
Harold T. McIver
Robert B. Mandle
Jesse A. Miller
Frank A. Moore
H. N. Moore
A. J. Mueller
Lamb B. Myhr
R. M. Neudecker
George Pakis, Jr.
L. G. Pascal, Jr.
James A. Phillips
John G. Riddler
Charles C. Stauffer
James L. Thomas
J. R. Thompson, Jr.
S. Allen Truex
Charles H. Webb
F. E. Williamson, Jr.
George B. Wyatt
Paul E. Wylie
H. R. Yarbro

MARION COUNTY

Jasper

J. G. McMillan (Mbr. Hamilton Co.)

South Pittsburg

J. B. Havron (Mbr. Hamilton Co.)
William Headrick, Jr. (Mbr. Hamilton Co.)
Eugene Ryan (Mbr. Hamilton Co.)
Viston Taylor, Jr. (Mbr. Hamilton Co.)

Whitwell

Cleo Chastain (Mbr. Hamilton Co.)
Wm. G. Shull (Mbr. Hamilton Co.)

MARSHALL COUNTY

Lewisburg

Kenneth Brown
J. T. Gordon
Hoyt C. Harris
James W. Limbaugh, Jr.
Kenneth J. Phelps
Wm. S. Poarch
J. F. Rutledge
Wm. L. Taylor
W. A. Walker

MAURY COUNTY

Columbia

D. B. Andrews
Wendell C. Bennett
Mildred Casey
Edward Ewton
Wm. G. Fuqua
C. C. Gardner, Jr.
Daniel R. Gray, Jr.
H. J. P. Harding, Jr.
Walton C. Harwell, Jr.
Harry C. Helm
Wm. N. Jernigan
Ralph Kustoff
Ambrose M. Langa
Robin Lyles
Geo. R. Mayfield, Jr.
Clay R. Miller
Edwin K. Provost
B. J. Vinson
Leon S. Ward
J. W. Wilkes, Jr.
Thomas K. Young, Jr.

Mt. Pleasant

Allyn M. Lay
Taylor Rayburn, Jr.
J. O. Williams

McMINN COUNTY

Athens

W. R. Arrants
Charles T. Carroll
L. D. Curtner
R. W. Epperson
C. O. Foree
W. Edwin Foree
R. Danny Hays
Robert G. Hewgley
Milnor Jones
John H. Lillard
J. A. Powell, Jr.
Helen M. Richards
L. H. Shields
Robert W. Trotter

Englewood

J. F. Cleveland

Etowah

Wm. K. Frye
S. Boyd McClary, Jr.
S. B. McClary, III
John C. Sharp
H. P. Whittle

McNAIRY COUNTY

Selmer

T. N. Humphrey
Harry L. Peeler
James H. Smith
Montie E. Smith, Jr.

MONROE COUNTY

Madisonville

R. C. Kimbrough
F. Houston Lowry
Horace M. McGuire

Sweetwater

J. H. Barnes
W. J. Cameron
Joe H. Henshaw
D. F. Heuer, Jr.
T. A. Lowry
Joe K. Wallace
J. E. Young

Vonore

Troy Bagwell (Mbr. Knox Co.)

MONTGOMERY COUNTY

Clarksville

Edward R. Atkinson
J. F. Bellenger
Carlos B. Brewer
F. D. Coleman
E. P. Cutter
Sam M. Doane, Jr.
M. M. Green
V. H. Griffin
John Griffith
B. T. Hall
J. E. Hampton
T. K. Hepler
Bryan T. Iglehart
Howard R. Kennedy
R. C. Koehn
J. H. Ledbetter, Jr.
William G. Lyle
F. J. Malone, Jr.
James L. McKnight
F. C. Petty
Jack Ross
A. F. Russell
D. R. Shipley
Marion E. Spurgeon
Charles A. Trahern
Harold V. Vann
Troy A. Walker
William H. Wall, Jr.
Paul E. Wilson
R. M. Workman

MOORE COUNTY

Lynchburg

F. Harlan Booher (Mbr. Lincoln Co.)

OBION COUNTY

Kenton

Alden H. Gray (Mbr. Consolidated Cos.)

Obion

W. S. Myers

Troy

Chesley H. Hill

Union City

J. Kelly Avery
M. A. Blanton, Jr.
Harold D. Butler
H. W. Calhoun
Joe Campbell
Wm. N. Carpenter
B. O. Garner
Dan C. Gary
R. L. Gilliam, II
Lawrence W. Jones
E. P. Kingsbury, Jr.
R. G. Latimer, Jr.
E. McCall Morris
James W. Polk
Malcolm T. Tipton
O. A. Zeller, Jr.

OVERTON COUNTY

Livingston

M. E. Clark
H. B. Nevans
Denton D. Norris
W. G. Quarles, Jr.
J. M. Roe

PERRY COUNTY

Linden

B. L. Holladay
Gordon H. Turner, Jr.

POLK COUNTY

Copperhill

H. H. Hyatt (Mbr. Hamilton Co.)
J. T. Layne (Mbr. Hamilton Co.)
W. C. Zachary, Jr. (Mbr. Knox Co.)

Ducktown

Wm. R. Lee (Mbr. Hamilton Co.)

PUTNAM COUNTY

Algood

J. T. Moore, Jr.

Cookeville

Jack L. Clark
J. T. Deberry
Wm. C. Francis
Kenneth L. Haile
Wm. A. Hensley, Jr.
Robert V. Larrick
Jere W. Lowe
D. W. Mattson
Thurman Shipley
Wm. S. Taylor
J. Fred Terry
Claud M. Williams

Monterey

C. A. Collins
T. M. Crain

RHEA COUNTY

Dayton

Albert C. Broyles (Mbr. Hamilton Co.)
Lester F. Littell (Mbr. Hamilton Co.)
J. J. Rodgers (Mbr. Hamilton Co.)
W. A. Thomison (Mbr. Hamilton Co.)

Spring City

Conrad L. Grabeel (Mbr. Roane Co.)

ROANE COUNTY

Harriman

A. Julian Ahler
Thomas L. Bowman
Elbert C. Cunningham
Fred J. Hooper
Lewis T. Howard
H. Stratton Jones
L. A. Killeffer
John R. Sisk†

Kingston

Carolyn A. Beard
Chas. W. Moorefield
P. R. Rothrock
Nat Sugarman

Oak Ridge

(See Anderson Co.)

Oliver Springs

S. J. Van Hook
Fred O. Stone

Rockwood

Thomas A. Fuller
Robert S. Hicks
Jack Lindsay
Geo. Shacklett
John V. Snodgrass, Jr.

ROBERTSON COUNTY

Cedar Hill

R. H. Elder

Cross Plains

Ora W. Ramsey

Ridgetop

E. E. Botsford

Springfield

J. W. Atwood
Sue C. Atwood
Warren G. Hayes
John M. Jackson
C. M. Looney
J. R. Quarles
N. H. Raines
W. P. Stone
John B. Turner
Raymond H. Webster
J. E. Wilkison

RUTHERFORD COUNTY

Murfreesboro

Carl E. Adams
Joseph C. Bailey
W. Stanley Barham
J. T. Boykin
John F. Cason
William E. Coopwood
B. S. Davison, Jr.
David T. Dodd
Paul C. Estes
R. James Garrison
S. C. Garrison, Jr.
T. Gilbert Gordon
Richard E. Green
Robert H. Hackman
A. E. Harvey
Sam H. Hay
R. D. Hollowell
J. K. Kaufman
Lois M. Kennedy
Donald L. LeQuire
Chas. W. Lewis
Fred R. Lovelace
M. B. Murfree, Jr.
Eugene P. Odom
Sam H. Patterson
James A. Payne
Robert G. Ransom
Creighton Rhea
B. W. Rawlins
Wm. M. Savage
Wm. W. Shacklett
W. Radford Smith
Theodore G. Smith
Olin Williams, Jr.
J. Howard Young, Jr.

Smyrna

George Goodall

SCOTT COUNTY

Oneida

M. F. Frazier
Maxwell E. Hulf
H. M. Leeds
Roy L. McDonald
Milford Thompson

SEQUATCHIE COUNTY

Dunlap

Charles Graves (Mbr. Hamilton Co.)

SEVIER COUNTY

Gatlinburg

Ralph H. Shilling
Charles E. Waldroup

Sevierville

Troy J. Beeler*
R. A. Broady
John M. Hickey, Jr.
R. A. McCall
Chas. L. Roach
Robert F. Thomas
O. H. Yarberry

Seymour

James B. Bell

*In Service
†Residency

SHELBY COUNTY

Arlington

Malcolm A. Baker

Collierville

R. F. Kelsey
John E. Outlan

Cordova

C. A. Chaffee
L. W. Diggs

Forest Hill

J. E. Clark

Germantown

John T. Carter, Jr

Memphis

Sara E. Abbott
Robert F. Ackerman
John Q. Adams
L. H. Adams
Ralph M. Adding ton
Henry L. Adkins
Justin H. Adler
Lorin E. Ainger
Garabed H. Aivazian
Albert M. Alexander
James E. Alexander
Chester G. Allen
F. Pearson Allen
Frank S. Allen
Robert G. Allen
F. H. Alley
Jacob Alperin
James L. Alston
Lawrence D. Amick
J. P. Anderson
Lewis D. Anderson
Sam B. Anderson, Jr.
William F. Andrews
Donald N. Anshanslin
D. H. Anthony
Robert A. Anthony
John W. Apperson, Jr.
J. M. Aste
H. E. Atherton
Leland L. Atkins
David F. Austin
Edgar L. Austin
Richard L. Austin
W. W. Aycock
J. C. Ayres, Jr.
John W. Baird
J. Earl Baker
George F. Bale
Aden W. Barlow, Jr.
James R. Barr
John M. Barron
Jerome N. Barrasso
John C. Beard, Jr.
George L. Barker
G. H. Bassett
Emmett D. Bell, Jr.
Samuel G. Bell
Steven H. Bell
Arthur L. Bellott, Jr.
Charles A. Bender
Hal E. Bennett
B. F. Benton
Wm. M. Berton
J. M. Bethea
Richard O. Bicks
Albert W. Biggs
James D. Biles, Jr.
E. S. Birdsong
C. R. Bishop
W. A. Bisson
W. T. Black, Jr.
Basil A. Bland, Jr.
Breen Bland
Phil B. Bleecker
Herbert Blumen
Laurence Blumen
Robert F. Bonner
Howard A. Boone
James L. Booth
C. Whitman Borg
R. L. Bourland
R. L. Bowlin
Earl P. Bowerman
H. B. Boyd
Bover M. Brady, Jr.
E. E. Bramlitt
Winston Braun
R. R. Braund
James T. Bridges
Carey Bringle
Louis Goodno Britt
Louis P. Britt, Jr.
D. A. Brody
Joseph H. Brock
Maury Bronstein
James S. Brown
Lawrence E. Brown
Harry G. Bryan
Malvern T. Bryan
James W. Bryant
W. D. Burkhalter
Orin D. Butterick, Jr.
James S. Byas
Shed H. Calley
R. A. Calandruccio
Edward P. Caldwell
M. K. Callison
E. Guy Campbell
Ernest A. Canada
Dominic J. Cara, Jr.
Bland W. Cannon
George M. Cannon
Robert S. Caradine, Jr.
D. M. Carr
David S. Carroll
Dan Carruthers, Jr.
Harvey W. Carter
L. L. Carter
A. H. Chamberlain, Jr.
J. M. Chambers, Jr.
W. C. Chaney
Ewin S. Chappell
Fenwick W. Chappell
R. E. Ching
Joseph M. Chisolm
Glenn M. Clark
James A. Clark, Jr.
Charles L. Clarke
E. W. Cocke, Jr.
Lawrence L. Cohen
F. H. Cole
B. C. Collins
James H. Collins
Frank H. Collins
E. D. Connell
John P. Conway
George A. Coors
Giles A. Coors
G. Daniel Copeland
Arthur A. Cox
Erwin M. Cox
John E. Cox
Culver C. Craddock
Rufus E. Craven
E. A. Crawford
S. E. Crawford
Loyd V. Crawford
P. T. Crawford
A. H. Crenshaw
Thomas K. Creson, Jr.
Robert N. Crockett, Jr.
C. V. Croswell
Terry P. Cruthirds
James W. Culbertson
Alvin J. Cummins
Ray E. Curle
Richard F. Daly
Orin L. Davidson
Harry Davis
Norman H. Davis
J. M. Davis
Robert A. Davison
W. J. Deaton†
Charles J. Deere
Hubert L. Dellinger, Jr.
V. J. Demarco
McCarthy DeMere
Sam J. Denny
Richard DeSaussure
Alice R. Deutsch
Melvin Wayne DeWees
J. L. Dies
Phillip H. Dirmeyer*
D. E. Dismukes*
Wm. T. Dobbins
John B. Dorian, Jr.
Wm. H. L. Dornette
Thomas G. Dorrity
Chas. V. Dowling
Paul T. Drenning
Horton DuBard
Marion Dugdale
W. D. Dunavant
James T. Duncan, Jr.
Hamel B. Eason
Leslie E. Eason (Mbr. Henry Co.)
Elmer S. Eddins
Allen S. Edmonson
Joseph A. Elgart
E. U. Epstein
Cyrus C. Erickson
James N. Etteldorf
C. Barton Etter
O. A. Eubanks, Jr.
J. D. Evans
M. L. Evans
H. B. Everett
B. E. Everett, Jr.
William H. Fancher
Cornell C. Faquin, Jr.
Harold G. Farley
Turley Farrar
Cyrus C. Farrow, Jr
Harold Feinstein
Daniel F. Fisher
James B. Flanagan
A. R. Flowers, Sr.
Nancy C. Flowers
Hugh Francis, Jr.
Jerry Thomas Francisco
W. Edward French
Burt Friedman
Eugene W. Gadberry
James T. Galyon
Joseph C. Garbarini, Jr.
Herbert C. Gardner
Edward L. Gegan
Elsbeth Gehorsam
O. S. Gibbs
D. Frederick Gioia
C. E. Gilliespie
John J. Gilluly
B. H. Ginn
George E. Gish
Thomas C. Gladding
Willard G. Glass
C. H. Glover
Fred A. Goldberg
Ralph Goldman
D. W. Goltman
J. O. Gordon
H. B. Gotten
Nicholas Gotten
Robert D. Gourley
Thomas E. Goyer
W. H. Gragg
John F. Gratz, Jr.
W. H. Gragg, Jr.
Lester R. Graves, Jr.
Lloyd M. Graves
H. D. Gray
Arthur W. Green
C. R. Green
Jack Greenfield
A. J. Grobmyer, Jr.
Pauline Grodsky
Fred T. Grogan, Jr.
Morton L. Gubin
Nobel Guthrie
James S. Haimsohm
Hollis H. Halford, Jr.
Jack R. Halford
Emmett R. Hall, Jr.
V. A. Hall
Margaret A. Halle
Ralph S. Hamilton
J. F. Hamilton
Wm. T. Hamilton
John B. Hamsher
Ethel Ashton Harrell
Mallory Harwell
Howard B. Hasen
Fred Erdman Hatch, Jr.
Wm. H. Hatfield
A. Kenneth Hawkes
C. D. Hawkes
Jean M. Hawkes
Frank P. Haws
C. L. Hay
L. K. Haynes
Thomas G. Head
Louie C. Henry
A. L. Herring
George B. Higley
George B. Higley, Jr.
Fontaine S. Hill
James M. Hill
E. E. Hines
Royce Hobby
John Lewis Hobson
W. K. Hoffman, Jr.
M. W. Holehan
Thomas L. Holliday
I. E. Holmes
David H. Holt
Sherman H. Hoover
Leo G. Horan
Arthur E. Horne
Glenn E. Horton
Hubert L. Hotchkiss
C. H. Householder
John L. Houston
Hector S. Howard, Jr.
William T. Howard
M. B. Howorth, Jr.
James G. Hughes
John D. Hughes
Max O. Hughes
Robert R. Hughes
John V. Hummell
Saun E. Hunter
W. E. Hurt
J. H. Ijams
C. W. Ingle
A. J. Ingram
G. W. Stanley Ish, Jr.
Charles E. Jabbour
Thos. M. Jackson
H. J. Jacobson
Hal P. James
Oliver C. Jeffers
Anthony P. Jerome
J. Don Johnson
Halvern H. Johnson
A. M. Jones
George P. Jones, Jr.
Joe Paul Jones
R. Luby Jones
Sidney D. Jones, Jr.
Robert G. Jordan, Jr.
A. Wilson Julich
Stanley B. Kaplan
Lyman A. Kasselberg
Harvey L. Kay, Jr.
Robert C. Kee
Marvin M. Keirns
Ernest G. Kelly
Henry G. Kessler
W. F. Kimmell
Robert P. Kline
Charles M. King
J. C. King
Howard H. Kitchens
W. F. Klotz
F. H. Knox, Jr.
Robert L. Knox
Sheldon B. Korones
Alfred P. Kraus
Bernard M. Kraus
Melvin M. Kraus
Cary M. Kuykendall
N. W. Kuykendall, Jr.
J. Warren Kyle
H. Z. Landis
C. G. Landsee
Herbert G. Lanford
Frank A. Latham
M. W. Lathram
A. E. Laughlin
H. G. La Velle, Jr.
Robert E. Lawson
Gilbert J. Levy
L. C. Lewis
P. M. Lewis
Alys H. Lipscomb
Geo. R. Livermore, Jr.
D. G. Lockwood
Charles E. Long
William E. Long
J. H. Lotz
J. C. Lougheed
Carruthers Love
Varna P. Love
Martha A. Loving
George S. Lovejoy
William M. Lovejoy
Edward H. Mabry
W. F. Mackey
Ray W. Mackey
Holt B. Maddox
James K. Maguire
Battle Malone II
T. P. Manigan
John C. Mankin
Philip M. Markle
Carl D. Marsh
C. H. Marshall
George W. Marten
Tinnin Martin, Jr.
A. D. Mason, Jr.
Wm. W. Mason
Gordon L. Mathes
O. S. Matthews
William P. Maury, Jr.
R. F. Maver
L. H. Mayfield
John T. McAskill
Robert P. McBurney
Chas. B. McCall
John W. McCall
John G. McCarter, Jr.
J. J. McCaughan
B. F. McCleave
James G. McClure
D. C. McCool
R. B. McCormick
L. K. McCown
E. F. McDaniel, Jr.
John L. McGee, Jr.
J. Wesley McKinney
A. M. McLarty
B. E. McLarty
Cecil E. McMurtry
Richard P. McNelis
George McPherson
Elise T. McQuiston
A. H. Meyer, Jr.
Robert M. Miles
Lee W. Milford, Jr.
C. W. Miller, Jr.
Fox Miller
George L. Miller, Jr.
Harold R. Miller
Joseph H. Miller
Richard A. Miller
Richard Braun Miller
Richard W. Miller
Dan C. Mills
David M. Mills
Geo. T. Mills
J. Purvis Milnor, Jr.
I. C. Minkin
B. G. Mitchell
E. D. Mitchell, Jr.
F. T. Mitchell
W. R. Mitchum
E. C. Mobely
J. C. Mobely, Jr.
Wm. L. Moffatt
E. M. Molinski
Ralph H. Monger, Jr.
Fontaine B. Moore, Jr.
James A. Moore
Marion R. Moore
Moore Moore, Jr.
Wm. H. Morse
Ralph F. Morton
Wm. H. Moshier
Henry Moskowitz
J. P. Moss
T. C. Moss
R. Lyle Motley
Kenneth J. Munden
Francis Murphey
Walter H. Murphy
W. F. Murrah, Jr.
Roland H. Myers
John P. Nash
Chas. Lea Neely, Jr.
John C. Newton
Thomas W. Nichols
George C. Nichopoulis
Eugene R. Nobles, Jr.
Wm. L. Northern, Jr.
D. W. Oelker
Evelyn Bassi Ogle
L. C. Ogle
W. S. Ogle
Claude D. Oglesby
Charles B. Olim
J. C. Orman
Phil E. Orpet, Jr.
Wm. J. Oswald
Alfred H. Page
Gene R. Page
Joseph B. Parker, Jr.
Charles W. Parrott, Jr.
Samuel Paster
Morris Pasternack
James W. Pate
Rushton E. Patterson
Russell H. Patterson, Jr.
Sam Polk Patterson
Bernard S. Patrick
Raphael N. Paul
G. E. Paullus, Jr.
Iris A. Pearce
Phillip A. Pedigo†
John D. Peeples, Jr.
B. L. Pentecost
Maurice C. Pian, Jr.
John D. Piggott
W. H. Pistole
Gerald I. Pittman
Mary Frances Poe
R. M. Pool
A. R. Porter, Jr.
C. H. Porter
Huey H. Potter
Stephen A. Pridgen
Edward McCall Priest
Helen Prieto
L. C. Prieto
Billie Harold Putman
S. L. Raines
Robert L. Rainey
W. T. Rainey
Darwin W. Rannels
R. B. Ray
John J. Redmon
Robert C. Reeder
Harvey C. Reese, Jr.
H. Eugene Reese
J. R. Reinberger
John M. Reisser, Jr.
W. E. Rentrop
Walter A. Rentrop
Hal S. Rhea
Chas. R. Riggs
George A. Riley
M. J. Roach, Jr.
H. C. Roberts
J. A. Roane
S. Gwin Robbins
C. G. Robinson
James A. Robinson
W. W. Robinson
W. P. Rochelle
Gordon K. Rogers
E. Wm. Rosenberg
Nathaniel E. Rossett
William A. Royer
Joseph A. Rothschild
Robert M Ruch
Walter A. Ruch, Jr.
H. G. Rudner
Henry G. Rudner, Jr.
John W. Runyan, Jr.
J. M. Russell, Jr.
P. B. Russell, Jr.
Fred P. Sage
Nathan C. Salky
Lehman C. Sammons
L. C. Sanders
R. L. Sanders
S. H. Sanders
W. T. Satterfield
W. T. Satterfield, Jr.
A. F. Saville, Jr.
S. J. Schaeffer, Jr.
David E. Scheinberg
Betty J. Schettler
Glen P. Schoettle
Jerome Schroff
P. C. Schreier
Elmer C. Schultz
Joseph L. Scianni
Benjamin F. Scott
C. B. Scott
Edwin L. Scott†
Joseph M. Scott
James L. Seale
L. L. Sebulsky
Jack Segal
M. P. Segal
E. C. Segerson
M. B. Seligstein
R. E. Semmes
Norman D. Shapiro
John L. Shaw
Martin C. Shea, Jr.
J. J. Shea, Jr.
Wm. E. Sheffield
James R. Shelton
Roger T. Sherman
Saul Siegel
James C. H. Simmons
W. L. Simpson
Paul R. Sissman
Edward F. Skinner
Henry T. Slawson, Jr.
Avron A. Slutsky
Alvin E. Smith
Hugh Smith
O. E. Smith
Vernon I. Smith, Jr.
Frank W. Smythe, Jr.
Edward D. Snyder
John J. Sohm

*In Service
†Residency

Phineas J. Sparer
J. S. Speed
Wm. O. Speight, Sr.
Wm. O. Speight, Jr.
Eugene J. Spiotta
Douglass H. Sprunt
C. Cooper Stanford
Thos. V. Stanley, Jr.
Ray G. Stark
C. Harold Steffee
William P. Stepp
Thomas N. Stern
Cleo W. Stevenson
E. M. Stevenson
E. N. Stevenson
M. J. Stewart
W. R. C. Stewart (Mbr. Davidson Co.)
Edward H. Storer
S. Fred Strain
S. F. Strain, Jr.
A. N. Streeter
Charles E. Strickland, Jr.
Robt. J. Stubblefield
Robert L. Summitt
Michael J. Sweeney
E. W. Sydnor, Jr.
Hall S. Tacket
B. S. Talley
Norman Taube
Finis A. Taylor
George G. Taylor, Jr.
James A. Taylor
Robert C. Taylor
W. W. Taylor
Morton J. Tendler
Amos Lee Thomas
Don R. Tielens
Wm. C. Threlkeld
A. B. Tripp
Merlin L. Trumbull
J. Frank Tullis, Jr.
H. K. Turley, Jr.
John C. Turley
P. A. Turman
R. B. Turnbull
Steve H. Turnbull, Jr.
Henry B. Turner
Arliss H. Tuttle
Austin R. Tyrer, Jr.
Wm. T. Tyson, Jr.
Jefferson D. Upshaw, Jr.
Robert A. Utterback
Edmund Utkov
E. A. Vaccaro
Helen Key Van Fossen
C. F. Varner
Walter E. Verner
Leonard J. Vernon
Sidney D. Vick
John R. Vincent
James W. Walker
Richard H. Walker
Richard P. Walker
W. Hamilton Walker
W. White Walker, Jr.
Fred C. Wallace
James A. Wallace
Peter B. Wallace
Maurice E. Waller
Bruce E. Walls
Thomas L. Waring
O. S. Warr, Jr.
W. W. Watkins
J. J. Weems
I. D. Weiner
Alva B Weir, Jr.
S. I. Wener
I. D. West
†Residency

T. H. West
William G. White
J. E. Whiteleather
Gene L. Whitington
W. L. Whittemore
W. Wiggins Wilder
Walter L. Wilhelm
H. G. Williams
Paul H. Williams
Gordon L. Wills
John R. Wills
Harry W. Wilson
Harwell Wilson
James E. Wilson
John M. Wilson
Andrew A. Windham
J. B. Witherington
Charles Ray Womack
Matthew W. Wood
Richard L. Wooten
C. W. Woolley
Howell D. Woodson
C. H. Workman, Jr.
Earle L. Wrenn, Jr.
J. Leo Wright
L. D. Wright, Jr.
Warren K. Wright
Henry Wurzburg
C. F. Yates
Jack G. Young
John D. Young, Jr.
Bernard M. Zussman

Millington

A. J. Cates
Paul J. Batson, Jr.
Fletcher Goode
Billy W. King

Whitehaven

Chas. Fitch (Mbr. Consolidated)
Gene L. Whitington

SMITH COUNTY

Carthage

Hugh E. Green
D. Gordon Petty
Frank T. Rutherford, Jr.
Thayer S. Wilson

STEWART COUNTY

Albert R. Lee

SULLIVAN COUNTY

Blountville

J. W. Erwin
Robert G. Patrick

Bristol (Tenn.-Va.)

Harry W. Bachman
James G. Blackford
Frank S. Blanton, Jr.
Talmadge Buchanan
W. C. Carreras
N. J. Chew
Bennett Cowan
A. S. Crawford
Russell L. Frankhouser
Wm. M. Gammon
Walter R. Gaylor
Thomas W. Green
Waverly S. Green
Wm. C. Grigsby
Chas. J. Harkrader
Ellis U. Harr
Basil T. Harter
Marshall D. Hogan, Jr.
Wm. H. Johnson
King A. Jamison

Tom H. Kuhnert
J. O. Marcy
Fred C. McCall
George W. McCall
James G. McFaddin
Joe E. Mitchell
B. W. Mongle
Marion J. Murray, Jr.
Floyd E. Nicley
I. E. Phillips
Robert A. Repass
W. F. Schmidt
F. W. Sutterlin
J. F. Thackston
D. D. Vance
Frederick Vance, Jr.
Wm. K. Vance
S. S. Whitaker
H. P. Williams

Kingsport

M. J. Adams
Edmond L. Alley
Donald W. Bales
Robert L. Banner
James H. Boles
Paul F. Brookshire
H. J. Brown
Robert Hyatt Brown
D. G. Burmeister
W. B. Camp
Edward K. Carter
D. P. Chance
Robt. C. Christensen
L. C. Cox
Paul W. Cox
Floyd Davis
Robert D. Doty
W. C. Eversole
Wm. Allen Exum
Frank S. Flanary
J. Frank Fleming
Billy N. Golden
Elmer A. Green
James J. Hamilton
William Harrison, Jr.
B. Roy Howard
R. J. Jarvis
Robert H. Jernigan
Malcolm M. Jones, Jr.
Robert C. Jones
Robert E. Keith
Kenneth R. Kiesau
Evert E. Kuester
Robert E. Maddox
Joseph K. Maloy
Eugene M. Maul
Frederick G. McConnell
John R. McDonough
H. J. Michals
John H. Moore
John E. Munal
James B. Nichols, Jr.
Wade Nowlin†
Frank B. O'Connell, Jr.
R. E. Pearson
J. S. Powers, Jr.
J. Shelton Reed
H. W. Rule
W. E. Scribner
Robert H. Shipp
Merrit B. Shobe
J. E. Shull
Lyle R. Smith
Warren Y. Smith
Raymond A. Steadman
R. T. Strang
Wm. P. Templeton
Rudolph H. Tiscotte
James S. Vermillion
John B. Warren
J. Dwight Whitt
H. Jackson Whitt
W. A. Wiley
J. E. Williams

SUMNER COUNTY

Gallatin

Joseph R. Blackshear
Charles M. Cowden†
W. M. Dedman
Halden W. Hooper (Mbr. Dickson Co.)
Robert A. Moore
Clarence R. Sanders
Walter H. Stephenson
James R. Troutt, Jr.
R. C. Webster
John B. Wallace

Hendersonville

W. Gordon Doss
Charles M. Gillitt

Portland

Albert G. Dittes
James T. Ladd
Ralph W. Simonton, Jr.

Westmoreland

Kermit E. Jones
Thomas F. Carter

TIPTON COUNTY

Covington

Warren A. Alexander
Travis L. Bolton
A. J. Butler
N. L. Hyatt
J. S. Ruffin, Jr.
H. S. Rule
James D. Witherington

Munford

H. W. Vaughan
A. S. Witherington, Jr.

TROUSDALE COUNTY

Hartsville

Edgar K. Bratton (Mbr. Smith Co.)
Ira N. Kelley (Mbr. Sumner Co.)

UNION COUNTY

Maynardville

John A. Marsee

UNICOI COUNTY

Erwin

Robert M. Glasgow
R. H. Harvey
N. E. Hyder
H. L. Monroe
Earl Peterson

VAN BUREN COUNTY

Spencer

Margaret Wrenn Rhinehart

WARREN COUNTY

McMinnville

Wallace Bigbee
C. M. Clark
J. P. Dietrich
J. Franklin Fisher
J. C. Gaw
John T. Mason
B. A. Meriwether†
James L. Moore
C. E. Peery, Jr.
J. E. Phillips
Jerry E. Puckett
B. C. Smoot

WASHINGTON COUNTY

Johnson City

C. E. Allen
Justin C. Blevins
J. R. Bowman
E. T. Brading
G. J. Budd
E. M. Campbell
Lewis F. Cosby, Jr.
Alfred N. Costner
Douglass H. Crockett
R. G. Dennis
H. B. Dearman
Burgin Dossett, Jr.
T. J. Ellis
C. W. Friberg
Byron W. Frizzell
Lyman A. Fulton
Lawrence E. Gordon, Jr.
Charles S. Gresham
James O. Hale
Ben D. Hall
Walter D. Hankins
Charles H. Hillman
Sam Huddleston
John F. Lawson
Carroll H. Long
Gordon L. Mason
W. T. Mathes, Jr.
T. P. McKee
J. B. McKinnon
Walter A. McLeod
E. A. Meeks
Ray W. Mettetal
Walter R. Miller
Richard Morrison, Jr.
H. C. Moss, Jr.
Harry Myron, Jr.
Orland S. Olsen, Jr.
C. O. Parker
Robert E. Piston
John P. Platt
Wallace L. Poole
Thomas P. Potter, Jr.
James J. Range
Gilbert Rannick
B. A. Richardson
Kenneth Roark
Clarence L. Ruffin
J. M. Sams
George K. Scholl
A. D. Shelton
Howell W. Sherrod
R. S. Shurtleff
M. Sidky-Afifi
Charles K. Slade
Mel D. Smith
Edward B. Steffner
Earl Sullivan
Hugh F. Swingle, Jr.
C. T. R. Underwood
C. J. Vandiver
Wm. A. Wiley, Jr.
John M. Wilson
Charles P. Wofford

Jonesboro

Sells Blevins
H. B. Cupp

Limestone

G. V. Stanton

Mountain Home

C. M. Creech
F. B. Kelly
Walter Fleishman
Martin Kerlan
Harry N. Waggoner
Shelburne D. Wilson

WAYNE COUNTY

Waynesboro

James Lambert
Dexter L. Woods
Dexter L. Woods, Jr.

WEAKLEY COUNTY

Dresden

M. R. Beyer
Ed. H. Welles, Jr.
Paul W. Wilson

Gleason

Robert M. Jeter

Greenfield

Edward T. Frank, Jr.
Ira F. Porter
Nathan F. Porter

Martin

R. W. Brandon, Jr.
G. S. Plog

WHITE COUNTY

Sparta

W. H. Andrews
Robert F. Baker
Donald Bradley
Charles A. Mitchell
C. B. Roberts
Leighton H. Smith, Jr.

WILLIAMSON COUNTY

Franklin

A. B. Bray
W. F. Encke
Harry J. Guffee
Howell P. Hoover, Jr.
R. H. Hutcheson
Anthony Joel Lee
Herbert T. McCall
Walter W. Pyle
T. C. Rice
Eugene S. Walcott
J. L. Willoughby

WILSON COUNTY

Lebanon

James C. Bradshaw
Morris D. Ferguson
B. M. Hightower†
A. T. Hall
R. C. Kash
James P. Leathers
Charles T. Lowe
S. B. McFarland
T. R. Purvear
J. H. Tilley
W. K. Tilley
R. Phillips Turner

VETERAN MEMBERS

M. L. Connell, Wartrace ..... Bedford
B. L. Burdette, Shelbyville ..... Bedford
T. R. Ray, Shelbyville ..... Bedford
I. S. Tipton, Friendsville ..... Blount
J. M. Onsley, Maryville ..... Blount
K. A. Bryant, Maryville ..... Blount
J. F. Adams, Woodbury ..... Cannon
Roy A. Douglass, Sr., Huntingdon ..... Carroll
L. E. Trevathan, Bruceton ..... Carroll
Estill L. Caudill, Sr., Doctors Bldg., Elizabethton ..... Carter
Elisha Farrow, Bells ..... Crockett
S. E. McDonald, Bells ..... Crockett
W. B. Anderson, 2723 Wortham Drive, Nashville ..... Davidson
G. F. Aycock, Mt. Juliet ..... Davidson
Anna M. Bowie, 1616 18th Ave., So., Nashville ..... Davidson
C. E. Brush, 2320 West End Avenue, Nashville ..... Davidson
O. N. Bryan, 2122 West End Avenue, Nashville ..... Davidson
B. F. Byrd, Sr., 301 7th Ave., No., Nashville ..... Davidson
Will Camp, Rock Island ..... Davidson
John S. Cayce, Mid-State Medical Center, Nashville ..... Davidson
W. J. Core, 1709 Stokes Lane, Nashville ..... Davidson
W. C. Dixon, Doctors Building, Nashville ..... Davidson
Beverly Douglas, Med. Arts Bldg., Nashville ..... Davidson
Henry L. Douglass, Doctors Bldg., Nashville ..... Davidson
L. W. Edwards, 2001 Hayes St., Nashville ..... Davidson
Wm. H. Faulkner, 1601 Phillips St., Nashville ..... Davidson
W. Frank Fessey, 2622 Franklin Rd., Nashville ..... Davidson
R. W. Grizzard, 1310 Church Street, Nashville ..... Davidson
George A. Hatcher, College Grove ..... Davidson
O. S. Hauk, Tenn. State Prison, Nashville ..... Davidson
R. N. Herbert, 4124 Franklin Road, Nashville ..... Davidson
J. Harvill Hite, Bennie Dillon Bldg., Nashville ..... Davidson
Wm. A. Horan, 1104 Ordway Place, Nashville ..... Davidson
W. P. Law, 618 Murfreesboro Road ..... Davidson
John M. Lee, Doctors Bldg., Nashville ..... Davidson

John J. Lentz, 311 23rd Ave., No., Nashville — Davidson
James D. Lester, Bennie Dillon Bldg., Nashville — Davidson
C. C. McClure, Sr., 5650 Hillsboro Rd., Nashville — Davidson
D. L. Mumpower, 4114 Gallatin Road, Nashville — Davidson
Oscar G. Nelson, 1310 Church St., Nashville — Davidson
O. A. Oliver, D.D.S., 1915 Broad St., Nashville — Davidson
T. G. Pollard, Doctors Building, Nashville — Davidson
Bruce P'Pool, Doctors Building, Nashville — Davidson
W. E. Reynolds, 1200 Plymouth Ave., Nashville — Davidson
B. T. Rucks, 6228 Cellini St., Coral Gables, Fla. — Davidson
H. S. Shoulders, Doctors Bldg., Nashville — Davidson
Robert E. Sullivan, 203 Evelyn Ave., Nashville — Davidson
R. B. F. Sweany, 907 Thoma Street, Manchester — Davidson
S. R. Teachout, 832 Third Nat'l. Bk. Bldg., Nashville — Davidson
Harold Truebger, 820 Normal Circle, Memphis — Davidson
Harlin Tucker, VA Regional Office, Nashville — Davidson
James J. Vaughan, D.D.S., 1921 Division St., Nashville — Davidson
Robert J. Warner, 204 Hillwood Dr., Nashville — Davidson
Jack Witherspoon, Doctors Bldg., Nashville — Davidson
W. J. Sugg, Dickson — Dickson
J. A. Ledbetter, Dyersburg — Dyer
John W. Morris, Somerville — Fayette
F. K. West, Rossville — Fayette
John Jackson, Dyer — Gibson
O. N. Torian, Sewanee — Franklin
M. D. Ingram, Trenton — Gibson
W. C. McRee, Trenton — Gibson
W. J. Johnson, Pulaski — Giles
Wm. A. Lewis, Pulaski — Giles
L. E. Coolidge, Greeneville — Greene
J. G. Hawkins, Greeneville — Greene
W. T. Mathes, Greeneville — Greene
L. P. Brooks, Chatta. Bk. Bldg., Chattanooga — Hamilton
John L. Cooley, Tarpon Springs, Florida — Hamilton
Chattanooga — Hamilton
Oscar D. Groshart, Provident Bldg., Chattanooga — Hamilton
John E. Frazier, Lookout Mtn. — Hamilton
Frank F. Harris, 1620 So. Clayton Ave., Chattanooga — Hamilton
E. L. Jenkins, 327 72nd Ave., St. Petersburg, Fla. — Hamilton
Wm. H. Marsh, 1702 Carroll Lane, Chattanooga — Hamilton
Harold J. McAlister, 1301 Dodds Ave., Chattanooga — Hamilton
E. E. Reisman, MacClellan Bldg., Chattanooga — Hamilton
Earl H. Smith, 1431 West Capital St., Jackson, Miss. — Hamilton
John B. Steele, 106 Morningside Drive, Chattanooga — Hamilton
G. Victor Williams, 905 Tremont, Chattanooga — Hamilton
P. M. Bishop, Whiteville — Hardeman
G. Leon Pope, Grand Junction — Hardeman
G. C. Lyons, Surgoinsville — Hawkins
P. M. Bishop, Whiteville — Hardeman
O. M. Swanay, Rogersville — Hawkins
T. C. Chapman, Brownsville — Haywood
J. H. McSwain, Paris — Henry
E. B. Paschall, Paris — Henry
T. A. Caldwell, Jefferson City — Jefferson
Eben Alexander, Eastern State Hospital, Knoxville — Knox
M. C. Bowman, Woodson Drive, Knoxville — Knox
Ray V. DePue, Doctors Bldg., Knoxville — Knox
E. A. Guynes, 114 Hotel Avenue, Fountain City — Knox
Louis A. Haun, Med. Arts Bldg., Knoxville — Knox
M. L. Jenkins, Corryton — Knox
A. R. McCullough, 423 West Church Ave., Knoxville — Knox
R. L. McReynolds, Med. Arts Bldg., Knoxville — Knox
Robert F. Patterson, Medical Art Bldg. Knoxville — Knox
S. Joe Platt, Blount Prof. Bldg., Knoxville — Knox
W. D. Richards, Hamilton Bank Bldg., Knoxville — Knox
M. S. Roberts, Medical Arts Bldg., Knoxville — Knox
W. A. Shetton, Medical Arts Bldg., Knoxville — Knox
W. S. Alexander, Ridgely — Lake
James L. Dunavant, Ripley — Lauderdale
J. R. Lewis, Ripley — Lauderdale
J. W. Danley, Lawrenceburg — Lawrence
W. E. Boyce, Hohenwald — Lewis
A. L. Griffith, Elora — Lincoln
T. E. Ashley, Fayetteville — Lincoln
J. E. Sloan, Fayetteville — Lincoln
Tate Collins, Jackson — Madison
John E. Powers, East Chester St., Jackson — Madison
Kelly Smythe, Bemis — Madison
Claude Y. Clarke, Mt. Pleasant — Maury
G. C. English, Mt. Pleasant — Maury
James H. Jones, Mt. Pleasant — Maury
B. H. Woodard, Spring Hill — Maury
J. A. Jones, Selmer — McNairy
W. A. Rogers, Tellico Plains — Monroe
J. H. Carr, Oakdale — Morgan
B. F. Runyon, 408 Franklin St., Clarksville — Montgomery
W. J. Abel, Decatur — McMinn
A. B. Qualls, Livingston — Overton
Lex Dyer, Cookeville — Putnam
L. M. Freeman, Granville — Putnam
W. A. Howard, Cookeville — Putnam
J. T. Moore, Sr., Algood — Putnam
John S. Freeman, Springfield — Robertson
J. S. Hawkins, Springfield — Robertson
Marshall Brucer, Rt. #4, Box #203, Tucson, Arizona — Roane
James Carr, Oakdale — Roane
George P. Zirkle, Kingston — Roane
J. B. Black, Murfreesboro, 618 E. Main St. — Rutherford
Joseph E. J. King, Murfreesboro, Box 899 — Rutherford
J. M. Shipp, Benton, Miss. — Rutherford
D. T. Chambers, Norma — Scott
M. E. Thompson, Oneida — Scott
Riley J. Ingle, Sevierville — Sevier
C. A. Chaffee, Cordova — Shelby
C. D. Allen, 1019 Madison Ave., Memphis — Shelby
S. B. Anderson, 956 Hiawatha, Memphis — Shelby
J. L. Beauchamp, 538 Stonewall, Memphis — Shelby
L. F. Boyd, 2067 Hallwood Drive, Memphis — Shelby
Kimsey M. Buck, 1193 Madison Ave., Memphis — Shelby
James F. Bradley, Route #1, Millington — Shelby
Wm. Britt Burns, 4123 Monticello Street, Abilene, Texas — Shelby
J. P. Carter, 649 White Station Road, Memphis — Shelby
W. C. Colbert, 899 Madison Ave., Memphis — Shelby
I. N. Coppedge, 1807 Harbert, Memphis — Shelby
R. R. Davenport, 664 No. McLean, Memphis — Shelby
R. B. Flaniken, 1115 Madison Ave., Memphis — Shelby
W. R. Graves, 505 So. Highland, Memphis — Shelby
Emmett R. Hall, Exchange Bldg., Memphis — Shelby
B. F. Hardin, Hickman Bldg., Memphis — Shelby
A. G. Hudson, 3474 Southern Avenue, Memphis — Shelby
H. B. Jacobson, 114 No. McLean Ave.,
Apt. #2, Memphis — Shelby
D. H. James, 1125 Exchange Bldg., Memphis — Shelby
J. A. James, 1125 Exchange Bldg., Memphis — Shelby
O. M. Laten, 1618 Exchange Bldg., Memphis — Shelby
Thomas F. Leatherwood, 835 Exchange Bldg., Memphis — Shelby
W. H. Lovejoy, 511 So. Parkway, East, Memphis — Shelby
C. R. Mason, 14 West Mallory Ave., Memphis — Shelby
J. W. Mason, 606 Chelsea Ave., Memphis — Shelby
R. F. Mason, 188 So. Bellevue, Memphis — Shelby
J. E. Meadors, 3383 Summer Ave., Memphis — Shelby
A. H. Meyer, Sr., Sterick Bldg., Memphis — Shelby
James E. Morris, Jr., 1182 Whiting, Memphis — Shelby
J. A. McIntosh, Col. Mut. Tower, Memphis — Shelby
J. A. McQuiston, 542 No. Highland, Memphis — Shelby
L. C. McVay, Marion, Arkansas — Shelby
J. L. Morgan, 328 Angelus, Memphis — Shelby
Arthur G. Quinn, Hot Springs, Ark. — Shelby
L. P. Pearce, Collierville — Shelby
J. W. Ragsdale, 1001 Madison, Memphis — Shelby
Alma B. Richards, 1214 Central Ave., Memphis — Shelby
W. L. Rucks, 3314 Poplar Ave., Memphis — Shelby
Harry C. Schmeisser, 4225 Walnut Grove, Rd., Memphis — Shelby
L. V. Schmittou, c/o General Delivery, Clarksville, Texas — Shelby
Neuton S. Stern, 899 Madison Ave., Memphis — Shelby
Carrol C. Turner, 5650 Raleigh-LaGrange Rd., Memphis — Shelby
Cecil Warde, 1707 Madison Ave., Memphis — Shelby
S. B. Williamson, Milan, Tenn. — Shelby
W. L. Williamson, 40 South Evergreen, Memphis — Shelby
Percy H. Wood, 411 North Highland, Memphis — Shelby
R. E. Key, Carthage — Smith
R. N. Buchanan, Sr., Hendersonville — Sumner
H. W. Bachman, Sr., Doctors Bldg., Bristol — Sullivan-Johnson
Nat H. Copenhaver, Central Bldg., Bristol — Sullivan-Johnson
A. J. Edwards, 808 Moore St., Bristol, Va. — Sullivan-Johnson
A. B. English, 26 4th St., Bristol — Sullivan-Johnson
Arthur Hooks, 26 4th St., Bristol — Sullivan-Johnson
S. R. McDowell, Blountville — Sullivan-Johnson
Alan K. Turner, 200 Solar St., Bristol, Va. — Sullivan-Johnson
W. A. Tyler, Kingsport — Sullivan
Aaron Cole, Piney Flats — Washington, Carter, Unicoi
John L. Hankins, Johnson City — Washington, Carter, Unicoi
U. G. Jones, Johnson City — Washington, Carter, Unicoi
A. J. Willis, Jonesboro — Washington, Carter, Unicoi
R. W. Brandon, Sr., Martin — Weakley
H. G. Edmondson, Martin — Weakley
J. O. Walker, Franklin — Williamson
O. Reed Hill, 1030 West Main St., Lebanon — Wilson

DECEASED MEMBERS—1963

Chapnick, A. M., Troy, N. Y. — Davidson
Cowan, Sam C., Nashville — Davidson
Eve, Duncan, Jr., Nashville — Davidson
Gayden, L. Reuben, Montgomery, Alabama — Davidson
Graves, George Tivis, Jr., Nashville — Davidson
Hollobaugh, Andrew N., Jr., Nashville — Davidson
Roberts, Edwin L., Nashville — Davidson
Robinson, Miller, Nashville — Davidson
H. H. Shoulders, Nashville — Davidson
Sikes, Ammie T., Nashville — Davidson
Weinstein, Albert, Nashville — Davidson
Sugg, W. J., Dickson — Dickson
P. C. Tipton, Dyersburg — Dyer
McAuley, L. D., Oakland — Fayette
Barrett, S. H., Chattanooga — Hamilton
Hamilton, James L., Gadsden, Alabama — Hamilton
Haymore, G. P., Chattanooga — Hamilton
Johnson, Ebb C., Chattanooga — Hamilton
Renner, Herman, Chattanoga — Hamilton
Richard, J. McClure, Chattanooga — Hamilton
Ritchie, N. S., Daisy — Hamilton
Roberts, G. Madison, Chattanooga — Hamilton
Schneider, Horst A., Chattanooga — Hamilton
Wood, S. H., Chattanooga — Hamilton
Lyons, J. S., Rogersville — Hawkins
Gibson, W. D., Knoxville — Knox
Grubb, Edgar L., Knoxville — Knox
Mohr, John F., Knoxville — Knox
C. L. Goodrich, Fayetteville — Lincoln
Boyd, Karl K., Athens — McMinn
Shelby, Manton L., Clarksville — Montgomery
Martin, C. P., Cookeville — Putnam
Millis, R. H., Cookeville — Putnam
W. S. Cooper, Oneida — Scott
Ball, Albert L., Memphis — Shelby
Basist, Robert, Memphis — Shelby
Blackwell, Sam J., Memphis — Shelby
Curl, Howard, Joplin, Missouri — Shelby
Ham, E. C., Memphis — Shelby
King, Vincent D., Memphis — Shelby
Mobley, J. C., Memphis — Shelby
Marolla, Michael M., Memphis — Shelby

Sparr, Harold, Memphis . . . . . Shelby
Thompson, M. E., Oneida . . . . . Scott
Keatts, C. N., Indian Mound . . . . . Stewart
Beasley, Isham H., Gallatin . . . . . Sumner
Giles, Clifford D., Gallatin . . . . . Sumner
Witherington, John, Covington . . . . . Tipton

MEMBERS RESIDING OUTSIDE OF TENNESSEE

Allen, Joseph H., Dept. of Radiology, Neurological Institute, 622 West 168th St., New York, N. Y.
Atria, Nicholas F., Kansas Neurological Institute, 3107 West 21st Street, Topeka, Kansas
Bagwell, Jerry G., c/o General Delivery, Paris, Texas
Brinkley, Billy B., 633 State Street, Bristol, Virginia
Briuks, Velta, Drawer "A", Dillsboro, N. C.
Crawley, William D., Jr., 783 Chicamauga Avenue, Rossville, Georgia
Crouch, Henry W., Apt. #7, 37 Blackburn, Belleville, Illinois
Crook, Charles S., 3542 S.W. 5th Street, Miami, Florida
Denniston, Joseph C., Hissom Memorial Center, Sand Springs, Oklahoma
Fowler, William R., 1230 Huckleberry, El Paso, Texas
Graeme, Jock L., 556 Morris Avenue, Summit, New Jersey
Hale, L. L. E., 589 Radcliffe, Pacific Palisades, California
Hance, Darwood B., Reid Memorial Hospital, Richmond, Indiana
Lane, K. S., Box 3772, Grand Central Station, New York 17, N. Y.
Lee, William H., Jr., Medical College, Charleston, S. C.
Ludington, D. Clifford, Jr., Adventist Hospital, Box 240, Benghazi, Libya, Africa
Meneely, George R., 900 Lake Shore Drive, Chicago, Illinois
McReynolds, E. C., 219 Purl Place, Corpus Christi, Texas
Morris, Joel C., 2819 Broadway, N.E., Brownsfield, Texas
Pitman, Naomi K., White Memorial Hospital, 1720 Brooklyn, Los Angeles, California
Ranck, Edward B., 1622 Lafayette Avenue, Biloxi, Mississippi
Roberts, A. D., 1210 Windsor Road, Apt. 214, Austin, Texas
Rossman, Nyman M., Boston State Hospital, 591 Manton St., Boston, Mass.
Shacklett, Robert S., Shelby, N. D.
Shelamer, Arthur M., USAID, c/o State Dept., Mail Room, Washington, D. C.
Shull, V. F., Summerville, Georgia
Solomon, John H., Bells Mills Road, Bethesda, Maryland
Steadman, Hunter M., 604 Avenue "D", Denton, Texas
Swan, John L., 1203 East Audubon Road, Montgomery, Alabama
Swift, Charles R., Tri County Hospital, Ft. Oglethorpe, Georgia
Wright, James C., 201 Richmond Avenue, Rossville, Georgia

INDEX TO VOLUME 56

PAGES BY ISSUE

January	1-38	May	163-200	September	351-390
February	39-76	June	201-274	October	391-426
March	77-124	July	275-310	November	427-464
April	125-162	August	311-350	December	465-

INDEX OF AUTHORS

Acker, J. E., Jr. 46
Adams, Crawford W. 175, 376
Anderson, J. Sumpter, Jr. 429
Bellomy, Bruce B. 275
Bicks, Richard O. 163
Campbell, J. Ed, Jr. 325
Campbell, Oliver P. 281
Carroll, David S. 1
Clark, Glenn 10
Dale, W. Andrew 351
Denniston, Joseph C. 436
Deutsch, Alice R. 5, 431
Dodds, Joseph J. 401
Edwards, William H. 465
Fowinkle, Eugene 357
Francisco, J. T. 319
Fredrickson, Luther E. 311
Gardner, H. Colby 1
Grossman, Laurence 398
Grossman, Milton 398
Guthrie, Nobel 357
Harrington, Paul R. 470
Harris, A. Page 281
Herrington, J. Lynwood, Jr. 465
Howard, G. Turner 314
Hughes, John Davis 125
Jackson, Lawrence 439
Kaplan, Herman J. 398
Kerlan, Martin 330
Killen, Duncan A. 439
Law, William 168
Lester, James P. 278
Little, Joseph A. 404
Livingston, Philip H. 87
Myers, Roland H. 285
Morton, Ralph F. 146
Obenour, Richard A. 427
O'Neill, James A., Jr. 172
Ownby, Fred D. 398
Parrott, Larry H. 52
Peirce, E. Converse II 321
Rogers, Stanfield 40
Rowlett, William M. 5
Runyan, John W. 391
Russell, Mrs. Olive Q. 330
Sawyers, John L. 465
Sexton, Richard C., Jr. 39, 45
Sinclair-Smith, Bruce 137
Skinner, Edward F. 85
Smith, James F. 360
Son, Choon D. 436
Stoneburner, Wesley H. 12
Swann, Nat H. 49
Symbas, Panagiotis N. 172
Talley, Joe S. 431
Taylor, Robert E. 163
von Werssowetz, Odon F. 77
Weinstein, Bernard M. 395
White, David A. 42
Wolfe, Lawrence K. 398

INDEX OF SUBJECTS

Abbreviations: "ab" for abstract; "ed" for editorial; "pp" for president's page; "cc" for clinical staff conference; "cpc" for clinicopathologic conference; and (*) for original articles.

ACHALASIA, treatment of (*) 163
ALBERT WEINSTEIN, an appreciation (ed) 455
ALDOSTERONISM, primary (*) 146
ALKAPTONURIA (ab) 403
AMERICAN MEDICAL ASSOCIATION
  actions of house of delegates (*) 27
  Dr. Annis in Tennessee (ed) 67
ANNOUNCEMENTS 37, 73, 119, 160, 199, 261, 307, 349, 386, 423, 463, 499
ARTHRITIS, psoriatic (cc) 287
BEHAVIOR PROBLEM (cc) 369
BIOPSY, scalene node (ab) 400
BLOOD, dead men's (ed) 66
BLOOD VESSELS
  embolism, peripheral arterial (ed) 380
  hepatic artery, aneurysm (cpc) 480
  sclerosing agents, anaphylaxis associated with (*) 395
  stroke, incipient, surgical treatment of (ab) 329
  vascular disease, quadrilateral peripheral (ab) 177
BOOK REVIEW 119
CANCER
  breast, age and menstrual status as prognostic factors (ab) 188
  bronchus, mucoepidermoid (cpc) 450
  cervical, in women under 30 years (ab) 51
  chemotherapy (*) 39, 45
  chemotherapy, selection methods (*) 40
  chemotherapy, useful agents (*) 42
  liver (cpc) 335, 374
CENTRAL STATE HOSPITAL, beginning of (ab) 167
CHEST
  flail, management of (*) 278
  pneumothorax, spontaneous, management of (*) 439
CLINICOPATHOLOGIC CONFERENCES 18, 59, 92, 148, 181, 290, 335, 374, 410, 450, 480
COLON, lesions simulating acute appendicitis (*) 351
CRYPTOCOCCOSIS (cpc) 92
CYSTIC HYGROMA (cc) 89
DEATHS 32, 68, 112, 156, 193, 255, 300, 344, 381, 418, 457, 495
DIABETES MELLITUS,
  comparative results of three tests (ab) 58
  thyroid disease (*) 168
DRUGS, conference on drug safety (ed) 299
EDITORIALS 25, 67, 98, 109, 155, 190, 253, 298, 341, 380, 416, 455, 487
EMBOLISM: See Blood Vessels
ENDOCARDITIS, bacterial, etiology (ab) 284
ESOPHAGUS, sliding hiatus hernia, surgical treatment of (*) 465
EYE
  amblyopia, tobacco-alcohol (ab) 414
  cataract, traumatic, alpha-chymotrypsin in surgery (*) 325
  glaucomas, demecarium bromide: analysis of action in (*) 5
  pseudotumor of orbit, hyalin bodies of disk (*) 431
  retinal detachment associated with exudative retinopathy (*) 285
FARM ACCIDENTS (ed) 25
GALLBLADDER, simultaneous roentgen examination of, & urinary tract (*) 1
HEART
  acute myocardial infarction—10 yr. study (ab) 88
  deliberate digitalis intoxication (ab) 45
  hydroxyzine as antiarrhythmic (*) 87
  myxedema and heart disease (*) 12
  recognition of surgically correctible disease (*) 137
  resuscitation, significance and management of acidosis (*) 321
  right ventricular failure, treatment (*) 367
  rupture of (cpc) 59
  septal defects, ventricular, catheterization studies (ab) 479
  work (*) 46
HEMIPLEGIA, rehabilitation (ed) 455

HEMORRHOIDS, recent trends in treatment (*) 314
HEPATITIS: See Liver
HERNIA
femoral, complicated by strangulation of meckel's diverticulum (*) 172
hiatus, sliding, surgical treatment of (*) 465
HYPERTENSION
antihypertensive treatment, problems in anesthetic management (*) 429
hazards of antihypertensive and diuretic therapy (*) 175
initial and maintenance therapy (*) 427
renal vascular disease as a cause (ab) 9
IMMUNIZATION, survey in Memphis of first grade pupils (*) 357
INDUSTRY
pre-employment physical examinations (ab) 425
psychologic disorders in (ab) 318
INFLUENZA, asian flu vaccine
(ed) 380
(ab) 453
KIDNEY
benign mesenchymoma of (cpc) 18
cyst and polycythemia (cpc) 189
cystic disease of medulla (*) 330
nephrotic syndrome (ed) 98
Pyelonephritis, xanthogranulomatous (*) 281
damage with phenacetin overdosage (ab) 171
LEUKOPLAKIA, oral (*) 360
LIVER
carcinoma of (cpc) 374
cirrhosis and carcinoma (cpc) 335
hepatitis, infectious (*) 125
LUNG
atelectasis, postoperative (cc) 178
congenital cystic disease (*) 52
MACHINE vs. MAN (ed) 155
MAIL BOX 306, 423
MAPLE SYRUP URINE DISEASE (ab) 405
MECKEL's DIVERTICULUM, strangulated, complicating femoral hernia (*) 172
MEDICAL CARE
British socialized medicine (ed) 253
economic situation (pp) 379
Kerr-Mills in Tennessee 341, 489
King-Anderson Hearings (ed) 487
medicare (pp) 252
patient care (ed) 298
self help training program 348
Tennessee congress on mental illness (pp) 415
voluntary associations, participation in (pp) 454
MEDICAL NEWS IN TENNESSEE 34, 69, 115, 158, 196, 257, 303, 346, 384, 420, 459, 497
MEDICAL EXAMINER SYSTEM (*) 319
MEDICINE, the year ahead (pp) 189
MENTAL HEALTH
responsibility of medical profession (ed) 416
Tennessee congress on (pp) 415
MYELOMA, multiple, in brothers (*) 398
NATIONAL NEWS 32, 69, 113, 157, 194, 256, 301, 344, 382, 418, 457, 495
NURSING, educational programs and opportunities (ab) 394
PARKINSONISM, physical treatment (*) 77
PERSONAL NEWS 36, 71, 118, 159, 198, 261, 305, 348, 385, 422, 462, 498
PERSONALITY, dual (cc) 443
PLACEMENTS 38, 76, 162, 200, 309, 390, 426,
POLYCYTHEMIA and renal cyst (cpc) 181
PRESIDENT's PAGE 24, 65, 97, 152, 154, 189, 252, 297, 340, 379, 415, 454, 486
PROGRAMS AND NEWS OF MEDICAL SOCIETIES 32, 68, 112, 156, 193, 255, 300, 344, 382, 418, 457, 495
PSEUDOHYPOPARATHYROIDISM, with hypothyroidism (*) 436
PSORIASIS, arthritis (cc) 287
PURPURA, thrombotic thrombocytopenic (cpc) 290
RABIES, an endemic area, value of fluorescent antibody technic (*) 311
RHEUMATIC FEVER
correct diagnosis (*) 404
potential preventability of first attacks (ab) 286
SCHIZOPHRENIA, evaluation of therapeutic methods (ab) 48
SCLEROSING AGENTS, anaphylaxis associated with (*) 395
SCOLIOSIS, adolescent, treatment of (*) 470
SHOULDERS, HARRISON (ed) 487
SMALL INTESTINE
obstruction (cc) 406
strangulated (cpc) 148
STAFF CONFERENCES 14, 55, 89, 178, 287, 333, 369, 406, 443,
SURVIVAL, pocket kit (*) 85
SYPHILIS, serologic tests and their interpretation (*) 275
TENNESSEE MEDICAL ASSOCIATION
address to house of delegates (*) 111
amendments to constitution and by-laws 121
attending annual meeting (pp) 97
board of trustees, minutes of meeting 248
Cannon, Bland Wilson 152
committees, standing 273, 343
communications (pp) 486
constitution and by-laws 263
cooperation with state government (pp) 65
council meeting, minutes of 247
county medical societies officers 274, 310
doctor and his state association (ed) 109
house of delegates, proceedings 29, 201
IMPACT (pp) 340
meetings with governor (pp) 297
membership roster 501
officers 274, 310
program, annual meeting 100
review of the year (pp) 154
statement on Kerr-Mills 489
what's in a name (ed) 191
THROMBOPHLEBITIS, pelvic (cc) 55
THYROID
disease and diabetes mellitus (*) 168
disease, P-R interval in (*) 49
hypothyroidism and myxedema (*) 391
hypothyroidism and pseudohypoparathyroidism (*) 436
storm (cc) 14
TRICHINOSIS (ed) 190
TUBERCULOSIS
field service program 145
rheumatism (*) 10
TUBEROUS SCLEROSIS (cpc) 18
TUMOR
glioblastoma multiforme (cpc) 410
presacral or retrorectal (*) 401
UNITED HEALTH FOUNDATIONS (ed) 26
URINARY TRACT, simultaneous x-ray examination of the biliary and (*) 1
WEBER-CHRISTIAN DISEASE (cc) 333



The Lady Governors of the Old Men's Home at Haarlem FRANS HALS, 1580/81-1666

In Geriatrics...

METAMUCIL® Provides Bland Smoothage

brand of psyllium hydrophilic mucilloid

The tendency of the elderly to subsist on low-residue foods often is a prime cause of bowel sluggishness. Adequate fecal content is necessary to maintain normal colonic function, since intracolonic distention is nature's method of stimulating reflex peristalsis.

Metamucil, therefore, fulfills a basic function in the treatment of geriatric constipation. It both softens hard, dehydrated fecal concretions and adds smooth, nonirritant, easily compressible hydrophilic bulk.

Metamucil applies a physiologic principle to correct constipation naturally.

Average Adult Dose: One rounded teaspoonful of Metamucil powder (or one packet of Instant Mix Metamucil) in a glass of cool liquid. To Metamucil powder, a refined, purified and concentrated psyllium hydrophilic mucilloid, an equal amount of dextrose is added as a dispersing agent. Each dose of the powder furnishes a negligible amount of sodium and 14 calories. To the mucilloid in Instant Mix Metamucil citric acid, sodium bicarbonate and mild flavoring are added. Each dose of Instant Mix Metamucil furnishes 0.25 Gm. of sodium and 3 calories. Metamucil is available as Metamucil powder in containers of 4, 8 and 16 ounces and as flavored Instant Mix Metamucil in cartons of 16 and 30 single-dose packets.

G. D. SEARLE & CO.

CHICAGO, ILLINOIS, 60680

Research in the Service of Medicine

Nashville Surgical Supply Company

The Physician and Hospital's Complete Supply & Service Source

Physicians equipment and supplies

Hospital equipment and supplies

Laboratory equipment and supplies

THE MOST COMPLETE DRUG AND BIOLOGICAL SUPPLY SOURCE IN TENNESSEE

Distributor for Standard and Mattern X-Ray Equipment and Supplies

24-Hour Emergency Service

Nashville Surgical Supply Co., Incorporated

1911 Church St.

Nashville, Tennessee

Phone AL 5-4601

cut Rx writing by 2/3 in colds, flu or grippe

NAME _____

ADDRESS _____

℞

No need to write three separate prescriptions for antitussive, decongestant and analgesic relief of common cold, flu or grippe symptoms when it is therapeutically correct... economically sound... to specify

ANTITUSSIVE/DECONGESTANT/ANALGESIC
'EMPRAZIL-C'® TABLETS

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Phenacetin	150 mg.
Aspirin	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming

'Emprazil-C' Tablets are available on prescription only.

Dosage: Adults and children over 12 years—1 or 2 tablets—3 times daily as required. Children 6 to 12 years—1 tablet—3 times daily as required. **Caution:** While pseudoephedrine is virtually without pressor effect in normotensive patients, it should be used with caution in hypertension. Also, while chlorcyclizine has a low incidence of antihistaminic drowsiness, the usual precautions should be observed. **Supplied:** Bottles of 100 tablets.

Also available without codeine as 'EMPRAZIL'® TABLETS

Complete literature available on request from Professional Services Dept. PML.

BURROUGHS WELLCOME & CO (U.S.A.) INC.

Tuckahoe, N. Y.



Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.

DRINK Coca-Cola TRADE MARK®



A SURGICAL INSTRUMENT OIL

Scientifically Developed for the

MEDICAL PROFESSION

Apply as indicated; a few drops especially in locks and serrations of instruments, or other delicate mechanisms. Leave a thin film over the entire instrument to prevent rust in disuse or storage. This highly refined clear instrument oil will not clog, gum or turn rancid. Non-corrosive.

4-oz. can 75c
Pt. bottle with dispensing can . . . $2.50
Qt. bottle with dispensing can $4.00
Plus post.

White Surgical Supply Co.

SURGICAL SUPPLIES & ACCESSORIES

515 West Church Ave. Knoxville 7, Tennessee

Telephone 3-1186

Murfreesboro—Vacancies

STAFF PHYSICIANS for 1275 bed neuro-psychiatric hospital, including 350 general medical and geriatric. Modern facilities for diagnosis and treatment of mental illness. Salary $11,150 to $18,405 depending on qualifications; fringe benefits; cost of moving to Murfreesboro will be paid by Veterans Administration; visit here for evaluation can be arranged at our expense. Excellent educational opportunities for students in this area. Contact—Director, Veterans Administration Hospital, Murfreesboro, Tennessee.

Tennessee Medical Association's

Exclusively Approved

GROUP DISABILITY INCOME PROGRAM

Administered By

Smith, Reed, Thompson & Ellis Co.

1322 Nashville Trust Building
NASHVILLE 3, TENNESSEE
Phone 255-7625

WILLIAM H. ELLIS, C. L. U. MGR.
THOMAS G. HENRY
CALVIN K. WESSMAN

ASSOCIATES

Alden H. Smith, C. L. U.

Arthur D. Reed, C. L. U.

Joe Thompson, Jr., C. L. U.

Alden H. Smith, Jr., C. L. U.

E. Dan Smith, II

Underwritten By

Commercial Insurance Company

Newark, New Jersey



Out-Patient Clinic and Offices

HILL CREST SANITARIUM

Established in 1925

FOR NERVOUS AND MENTAL DISEASES
AND ADDICTION PROBLEMS

James A. Becton, M.D.
P. O. Box 2896, Woodlawn Station, Birmingham 6, Ala.

James K. Ward, M.D.
Phones WOrth 1-1151

Psychiatric Residencies for General Practitioners and other Physicians in Practice for more than four years

There is a position available in a three year, approved dynamically-oriented psychiatric residency program in a 500 bed, acute general hospital. Rotations through acute psychiatric receiving service, adult and child in-patient services, and consultation service. Intensive supervision. Experience in both individual and group treatment. Active didactic program. Medical school affiliation and appointment.

Applications now being accepted for the academic year beginning July 1, 1964. N.I.M.H. grants up to $12,000, per year for physicians who meet the requirements of this program. For further information write: Alex H. Kaplan, M.D., Director of Training Program; Department of Psychiatry; The Jewish Hospital of Saint Louis; 216 South Kingshighway Boulevard; Saint Louis, Missouri 63110.

ACCEPTED AMERICAN MEDICAL ASSN.

HOMOGENIZED
VITAMIN D MILK
PRODUCES SOFT CURD
(400 U.S.P. Units Vitamin D
Per Quart)

"A" Grade Sealtest MILK Phone AL 5-6451

Fortified Fat Free Milk
(2000 Units Vitamin A—400 Units Vitamin D)
NASHVILLE PURE MILK CO.

WANTED

GENERAL PRACTICE

FAMILY PHYSICIAN — Medical Group, West Virginia College, City of 30,000 near University Medical Center, 90 miles south of Pittsburgh.

Starting salary $15,000-16,000; annual increments; excellent fringe benefits.

For information, call collect
Administrator, Area Code 304-366-0700

SAINT ALBANS

PSYCHIATRIC HOSPITAL

(A Non-Profit Organization)

Radford, Virginia

Telephone: 639-2482

STAFF

James P. King, M.D., Director

William D. Keck, M.D.
Clinical Director
James K. Morrow, M.D.
Silas R. Beatty M.D.
Jack M. Rogers, M.D.

Edward W. Gamble, III, M.D.
Morgan E. Scott, M.D.
Jean M. Glasgow, M.D.
J. William Giesen, M.D.
Internist (Consultant)

Clinical Psychology:

Thomas C. Camp, Ph.D.
Artie L. Sturgeon, Ph.D.

Don Phillips
Administrator

AFFILIATED CLINICS

Bluefield Mental Health Center
525 Bland St., Bluefield, W. Va.
David M. Wayne, M.D.
Phone: 325-9159

Beckley Mental Health Center
109 E. Main Street, Beckley, W. Va.
W. E. Wilkinson, M.D.
Malcolm G. MacAulay, M.D.
Phone: 253-8397

Charleston Mental Health Center
1119 Virginia St., E., Charleston, W. Va.
Richard D. Kitching, M.D.
Phone: 344-3578

Norton Mental Health Clinic
Norton Community Hospital, Norton, Va.
Pierce D. Nelson, M.D.
Phone: 1090

REFER EYE PATIENTS
TO AN
EYE PHYSICIAN

By so doing, you will be assured of a complete diagnosis of your patients' eyes.

Guild Opticians complete the cycle for Professional Service.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

BE SAFE—BE SURE

SEE

YOUR GUILD OPTICIAN

FOR

THE BEST SERVICE

EYE PHYSICIANS: Please Note—

Your prescriptions for glasses are "SAFE" when referred to a Guild Optician. Bound by the code of Ethics to uphold the highest standards in optical service.

Today's Health

A GOOD BUY IN PUBLIC RELATIONS

Place it in your reception room

Today's Health is published for the American Family by the American Medical Association, 535 N Dearborn St.—Chicago 10, Illinois

Give your subscription order to a member of your local Medical Society Woman's Auxiliary, who can give you Special Reduced Rates.

BRAWNER HOSPITAL, INC.

(Established 1910)

2932 South Atlanta Road, Smyrna, Georgia

FOR THE TREATMENT OF PSYCHIATRIC ILLNESSES AND PROBLEMS OF ADDICTION

MODERN FACILITIES

Jas. N. Brawner, Jr., M.D.
Medical Director

Aloysius I. Miller, M.D.
Mark A. Gould, M.D.

Phone HEmlock 5-4486



YOU:

HISTORY: 20 years of study, plus internship/residency. Substantial investment in professional location, equipment. **SIGNS and SYMPTOMS:** Reports that large home, growing family and minimal professional standard of living are a concern. Still ahead—college costs, retirement, natural estate ambitions. **PROGNOSIS:** Needs 15-20 peak years of income to pay off education, home; rear family; retire. All this while battling tough taxes, and without the benefit of social security or company paid life and disability insurance, pension plan. **TREATMENT:** Learn about Mutual Benefit Life's "Seven Significant Benefits". Talk with a M.B.L. representative. See how a built-for-you plan solves specific problems through unique disability clauses, unusually high cash and loan values, liberal survivor income options—and more. Write on your own professional letterhead for exclusive report covering a full range of typical insurance requirements for physicians. Just ask for a copy of *Consultant's Report*.

Those who plan ahead get ahead **MUTUAL BENEFIT LIFE** INSURANCE COMPANY, NEWARK, NEW JERSEY

CARRIER OF YOUR TENNESSEE MEDICAL ASSOCIATION GROUP LIFE INSURANCE PLAN

EDWARD C. DUNN	SETH W. SIZER	THERON M. LEMLY
1104 Sudekum Bldg.	1211 James Bldg.	1309 Poplar Ave.
Nashville, Tenn.	Chattanooga, Tenn.	Memphis, Tenn.



PHYSICIANS MUTUAL INSURANCE COMPANY

(FORMERLY PHYSICIANS CASUALTY ASSOCIATION AND PHYSICIANS HEALTH ASSOCIATION)

115 SOUTH 42ND STREET OMAHA 31, NEBRASKA

Something "New"

For

Doctors

Protect Your Most Valuable Asset

"Your Time"

Our New Sickness and Accident Protection Policy
Pays the Amount You Select up to $500.00 per Month
For Loss of Time Caused by Accident or Sickness

Insuring Physicians & Dentists for 60 years.

PHYSICIANS MUTUAL INSURANCE COMPANY

COUPON

Physicians Mutual Insurance Co.
115 So. 42nd St. Omaha 31, Nebraska
"Offering Protection to Physicians and Dentists
Since 1902"

Name_____ Age_____

Address_____ City_____

PLACEMENT SERVICE

The Placement Service of the Tennessee Medical Association is designed to assist doctors and communities to get together. Further information and contacts to both physicians and communities are available from the Public Service Office, 112 Louise Avenue, Nashville, Tennessee, 291-4584.

Locations Wanted

UROLOGIST, 31 years of age, graduate of the University of Virginia, would like to establish clinical, assistant, associate, or institutional practice in East or Middle Tennessee city of 25,000 plus. Married; Baptist; now in residency. Available July 1964. LW-488

◆

ANESTHESIOLOGIST, age 43, graduate of the Vienna (Austria) University School of Medicine, would like assistant, associate, clinical, industrial, or educational practice in any city of Tennessee, 40,000 plus. Married; Hebrew. Available immediately. LW-512

◆

GENERAL PRACTITIONER, 30 years of age, graduate of the University of Arkansas, would like associate, clinical, or solo practice in small community or town of Middle Tennessee. Married; Protestant. Date of availability open. LW-513

◆

GENERAL SURGEON, age 31, graduate of Western Reserve University School of Medicine, wants associate, clinical, or solo practice in any city in Tennessee of 10,000 plus. Now in fourth year residency; will be Board eligible upon completion of fourth year. Married; Protestant. Available July 1964. LW-514

◆

GENERAL PRACTITIONER, 27 years of age, graduate of the Medical College of Alabama, would like assistant, associate, or clinical practice in any size city in Tennessee. Now in military service; married; Baptist. Available July 1965. LW-515

◆

OBSTETRICIAN-GYNECOLOGIST, 31 years of age, graduate of the Vanderbilt School of Medicine, would like assistant, or associate in city in Middle Tennessee of 25,000 plus. Native Tennessean; has Tennessee license; Jr. Fellow American College Ob-Gyn. Married; Baptist. Available July 1964. LW-516

◆

OBSTETRICIAN-GYNECOLOGIST, 30 years of age, graduate of LSU's School of Medicine, would like assistant, associate, or clinical practice in any city in Tennessee of 16,000 plus. Presently in residency training; married; Methodist. Available August 1964. LW-517

◆

GENERAL PRACTITIONER, age 33, graduate of the University of Miami School of Medicine, would like assistant, industrial, or solo practice in Tennessee. No preference as to size or locality. Married; Episcopalian. Available May 1964. LW-518

◆

INTERNIST, 31 years of age, graduate of the University of Texas Medical Branch, would like associate practice in Tennessee. Prefers West Tennessee, but will consider other sections; 30,000 plus. Now in residency training; married; Hebrew. Available November 1964. LW-519

◆

INTERNIST, with practice in Hemotology-Cardiology, graduate of New York University School of Medicine, 38 years of age, would like associate, clinical, or institutional practice in Middle or West Tennessee city of 25,000 plus. Board eligible; married; Lutheran. Available within three months of acceptance. LW-520

Physicians Wanted

A physician in East Tennessee town of 6,000 would like associate for general practice. Age 25-35, with one year internship. New, private office with examining rooms and equipment available. Hospital located nearby. PW-134

◆

Small Tennessee community in southern area in need of a general practitioner to replace retired M.D. Hospital within 15 miles. Near large industrial area. Large local trade. Good location for interested physician. PW-142

◆

Southern Tennessee community of slightly over 500 in need of general practitioner. Trade area much larger. No other physician in community. Office space and some equipment available. PW-147

◆

A well established, prosperous community, immediately adjacent to large East Tennessee city, is in need of a general practitioner to establish solo or clinical practice. PW-168

◆

A physician in East Tennessee town of 2,000 would like to share office and equipment with associate general practitioner. Good housing facilities available. Hospital nearby. PW-169

◆

A general practitioner in Middle Tennessee town of over 1,200 would like an associate, with at least 2 years residency in general surgery, not over 45 years of age. Good schools; near excellent recreational facilities; housing and office space adequate; some office equipment available. PW-175

◆

A physician is needed in Middle Tennessee town of approximately 1,500, near large metropolitan city, to operate small hospital. No other physician in area. General practitioner, Ob-Gyn, internist, or surgeon desired. Hospital fully equipped. Near large Air Force Base. PW-198

◆

A general practitioner or general surgeon needed as an associate or assistant for large clinic in Middle Tennessee city of over 10,000. Age 30-45; high morals; does not indulge in alcoholic beverages; residency training. PW-200

◆

A general practitioner needed for temporary practice of six months to one year, for small Middle Tennessee town of approximately 3,000, to fill vacancy caused by physician leaving for further residency training. Salary open; living quarters with meals, if desired; or other suitable arrangements will be made. Office space and equipment furnished. Physician must do hospital practice. PW-202

◆

An internist is needed as an assistant in West Tennessee city of 15,000. Well established and equipped office. Age 25-35. Hospital practice required. Area an agricultural and industrial one. Good opportunity. PW-203

Now Available

TO MEMBERS OF THE TENNESSEE MEDICAL ASSOCIATION

Who can qualify for this insurance

$500.00 Per month DISABILITY INCOME PLAN—NON CANCELLABLE

Pays LIFETIME for accident—10 YEARS CERTAIN FOR ILLNESS

DOUBLE BENEFITS FOR ANY THREE MONTH PERIOD OF HOSPITALIZATION

GENERAL PROVISIONS:

$5,000.00 Principal Sum—Death or Dismemberment Common Carrier $10,000.

Complete aviation coverage on both Monthly Benefit and Principal Sum both private and commercial flying

Monthly benefits payable from the first day of disability

May also be issued with elimination periods if desired

Individually NON CANCELLABLE except for—

1. Non Payment of Premium within the grace period
2. Retired from practice

Guaranteed renewable to age 70. Renewable thereafter at the option of the Company

For further information please contact

Sovereign States Insurance Company

1808 West End Avenue

Post Office Box 767

Nashville, Tennessee

Carl Yeakey, Director of Professional Services

"A Participating Insurance Company Underwriting the Tennessee Plan"

Professional Liability Insurance

(MALPRACTICE)

Policy and Rates Approved

by the

TENNESSEE MEDICAL ASSOCIATION



FARRINGER & CO.
Phone 524-7335
KNOXVILLE, TENNESSEE

FAW & SHERROD, INC.
JOHNSON CITY, TENNESSEE

INGLE-KNOX INSURANCE AGENCY
CHATTANOOGA, TENNESSEE

LIPSCOMB & PITTS COMPANY
MEMPHIS, TENNESSEE

Standard Coverage That

SAVES YOU 36%

NO. X-RAY THERAPY

Limits	Physicians	Surgeons
5/15	$ 44.80	$107.20
50/150	84.67	202.61
100/300	92.29	220.83
200/300	96.32	230.48
300/600	112.80	253.20
500/1 Million	132.83	278.85
1 Million/1 Million	139.55	294.93

X-RAY—RADIUM OR SHOCK THERAPY

5/15	89.60	152.00
50/150	169.34	287.28
100/300	184.58	313.12
200/300	192.64	326.80
300/600	213.60	354.00
500/1 Million	237.66	383.68
1 Million/1 Million	251.10	406.48

1. Partnership liability, increase premium for each partner by 20%
2. Anesthesiologists take Physicians rates.
3. Premises Liability (bodily injury and property damage) Minimum premium $12.40
4. Other limits will be quoted on request.

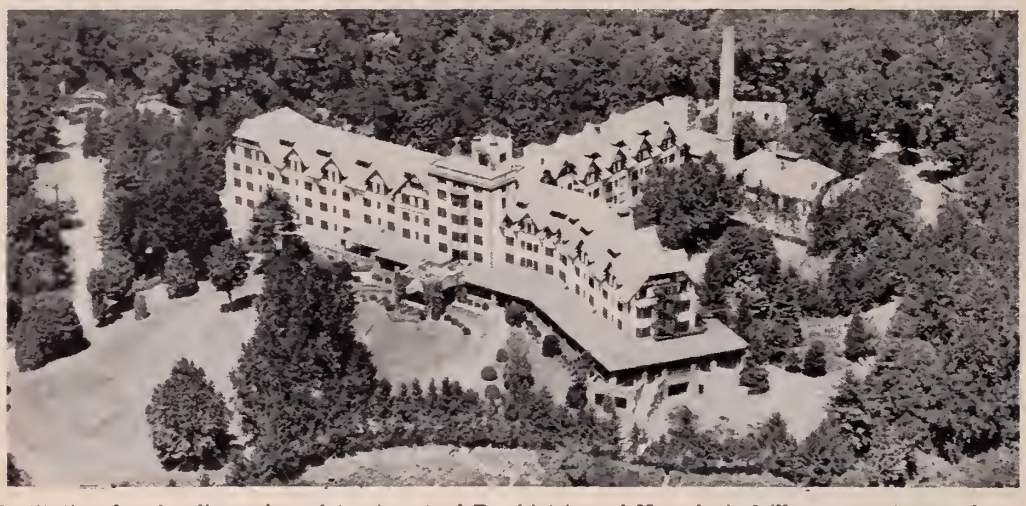
Your policy backed by
Assets over $40,000,000

Shelby Mutual Insurance Co.
of Shelby, Ohio

*20% off on Hospital—Professional Liability
*For Information on Hospital—Professional Liability and other coverages, please contact one of the agents listed.

APPALACHIAN HALL
Established 1916

Asheville North Carolina



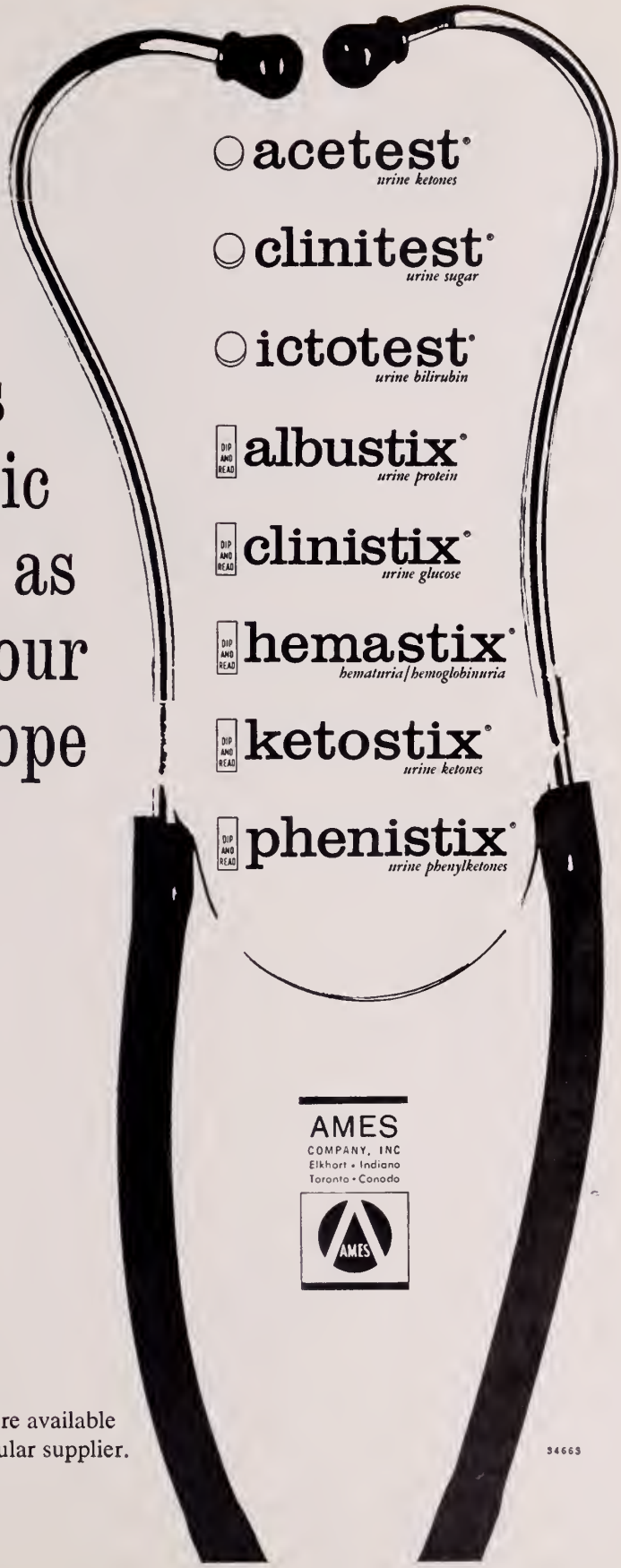
An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.
Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.
Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

WM. RAY GRIFFIN, JR., M.D.
ROBERT A. GRIFFIN, M.D.
MARK A. GRIFFIN, SR., M.D.
MARK A. GRIFFIN, JR., M.D.

For rates and further information write
Appalachian Hall, Asheville, N. C.

List of Advertisers in This Issue

American Cyanamid Company	XXI, XXX, XXXI
Ames Co., Inc.	XLIX
Appalachian Hall	XLVIII
Blood Bank Foundation	XX
Brawner Hospital, Inc.	XLII
Brayten Pharmaceutical Company	XXVI
Burroughs Wellcome & Co.	XXXVII
Chatham Pharmaceuticals, Inc.	XXVIII
Chicago Medical Society	VI
City View Sanitarium	XXII
Coca-Cola	XXXVIII
Endo Laboratories	XV
Farringer & Company	XLVII
Geigy Pharmaceuticals	XI, XII, XIII, XIV
Guild Opticians	XLII
Hart Laboratories	XVIII
Hill Crest Sanitarium	XL
Jewish Hospital of St. Louis	XL
Kay Surgical, Inc.	XXVIII
Lilly, Eli and Co.	I, XXXIV
Mayrand, Inc., Pharmaceuticals	XVI
Murfreesboro VA Hospital	XXXVIII
Mutual Benefit Life Ins. Co.	XLIII
Nashville Surgical Supply Co., Inc.	XXXVI
Nashville Pure Milk Co.	XL
Oak Motors	VI
Parke-Davis and Company	II, III
Physicians Mutual Ins. Co.	XLIV
Physicians Products Co., Inc.	VII
Physician Wanted	XL
Placement Service	XLV
Psychiatric Residencies for G.P.'s	XXII
Roche Laboratories	L
Rorer, William H.	XXXII
St. Albans	XLI
Saunders, W. B., Company	XIX
Schering	XXXIII
Searle, G. D. & Co.	XXXV
Smith, Kline & French Laboratories	X
Smith, Reed, Thompson & Ellis Co.	XXXIX
Sovereign States Ins. Co.	XLVI
Tafel Surgical Supply Co., Inc.	XXII
Today's Health	XLII
Wallace Laboratories	VIII, IX, XX, XXIV, XXV, XXVII, XXIX
White Surgical Supply Co.	XXXVIII
Winthrop Laboratories	V, XVII, XXIII



urine tests as basic as your stethoscope

acetest®
urine ketones

clinitest®
urine sugar

ictotest®
urine bilirubin

DIP AND READ albustix®
urine protein

DIP AND READ clinistix®
urine glucose

DIP AND READ hemastix®
hematuria/hemoglobinuria

DIP AND READ ketostix®
urine ketones

DIP AND READ phenistix®
urine phenylketones

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

AMES products are available through your regular supplier.

34663

LIBRIUM®
(chlordiazepoxide HCl)
the successor
to the tranquilizers

ROCHE

In prescribing: Dosage—Adults: Mild to moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. Cautions—Occasional side effects, often dose-related, are drowsiness, ataxia, minor skin rashes, menstrual irregularities, nausea and constipation. Paradoxical reactions may occasionally occur in psychiatric patients. Individual maintenance dosages should be determined. Advise patients against possibly hazardous procedures until maintenance dosage is established. Though compatible with most drugs, use care in combining with other psychotropics, particularly MAO inhibitors or phenothiazines; warn patients of possible combined effects with alcohol. Observe usual precautions in impaired renal or hepatic function, and in long-term treatment. Caution should be exercised in prescribing any therapeutic agent for pregnant patients. Supplied—Capsules, 5 mg, 10 mg and 25 mg, bottles of 50 and 500.

The New York Academy of Medicine

DUE IN TWO WEEKS UNLESS RENEWED
NOT RENEWABLE AFTER 6 WEEKS

DATE BORROWED	BORROWER
OCT 12 1964	
SEP 3 1971	